



CBSG News

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Reports from the
2001 Annual
Meeting

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Volume 13
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Newsletter of the
Conservation Breeding
Specialist Group,
Species Survival
Commission, The World
Conservation Union
(CBSG, SSC, IUCN)

2001 CBSG Annual Meeting Memories

It's a new year and the 2001 CBSG Annual Meeting is several months behind us now but the energy and contribution of the participants, the pleasant and helpful attitude of the docents, the hospitality of the hosts and the beauty of the venue remain clear in our minds.

The CBSG Annual Meeting, which was held on Rottnest Island in October 2001 and hosted by Perth Zoo, was attended by 78 delegates representing 55 different institutions in 20 countries. Brian Easton, CEO of Perth Zoo, and his staff, particularly Merri Blakemore and the docents, did a superb job preparing for this intensive 2 ½ day conference and were incredibly cheerful, knowledgeable and accommodating throughout. We are extremely grateful for the time and energy they and many others dedicated to ensuring a productive and enjoyable CBSG conference.

The majority of the Meeting was spent with participants in one (or more) of six working groups: 1) Australian Mammals; 2) ISIS Scientific Advisory Group and the Global Animal Database Group (GADG); 3) the Bushmeat Crisis; 4) Redesign of CBSG Annual Meeting; 5) WAZA *In Situ* Priorities Synthesis Group; and 6) Global Invertebrate Conservation. Each group presented preliminary and final reports to the plenary session and their work and recommendations are summarized in this issue of *CBSG News*. In addition, presentations were given on each of the CBSG networks represented at the Meeting (South Asia, Mesoamerica, South Africa, Indonesia and Japan) and several excellent and diverse topic/project-focused presentations were made. These included a presentation by Karl Amman on the Bushmeat Crisis; Barita Manullang, Diane Gates and Leif Cocks gave a joint presentation on the Javan Gibbon Rehabilitation for Conservation Project; and Terry Fletcher and Colin Hyde reviewed the Perth Zoo's role in species recovery in Western Australia. Paul Pearce-Kelly of London Zoo updated us on the progress being made in the International Partulid Programme and John Cooper, University of Cape Town, shared past and future efforts to conserve southern African breeding seabirds. This issue of our newsletter also contains reports of these presentations.

A highlight of the meeting was a fantastic sunset tour of Rottnest Island, hosted by the Rottnest Island Authority and the Perth Zoo. This was an energizing event that brought the entire group together. Ulie closed the conference with well deserved thanks to all the participants for the enormous amount of energy they put into the meeting and for the reports produced.

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He also pointed out the increased complexity of the topics the zoo community and CBSG are facing and the long way we have come in developing tools and techniques for addressing them. It was hard to leave Rottnest Island, literally, at the close of this wonderful and motivating conference. The swells were significant and the ferry ride back to Perth was hair raising but every minute was enjoyable thanks to the friendly, relaxed group we had the pleasure of working with.

The 2002 CBSG schedule is filling up rapidly. Especially exciting will be the launch of a new and improved CBSG web site, VORTEX for Windows, a CAMP for all South African Mammals, a series conservation planning workshops for National Wildlife Refuges in the United States and the 2002 CBSG Annual Meeting hosted by Shoenbrunn Zoo, Vienna. If you would like additional information on any of the projects on the CBSG schedule, please let us know. We look forward to working with many of you throughout the year.



Dr. Onnie Byers
CBSG Program Officer



Dr. Ulie Seal
CBSG Chairman



Note to CBSG Members

Thanks to those of you who returned your SSC and CBSG membership forms, it has been helpful to update our contact information records! If you have not yet returned your forms, but wish to remain on the CBSG and SSC membership lists and receive *CBSG News* and *Species*, please send your membership form in at once. If you have misplaced your membership form please contact the CBSG office and we will send you a new one.

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CBSG News

CBSG News is published by the Conservation Breeding Specialist Group, Species Survival Commission, World Conservation Union. *CBSG News* is intended to inform CBSG members and other individuals and organizations concerned with the conservation of plants and animals of the activities of CBSG in particular and the conservation community in general. We are interested in exchanging newsletters and receiving notices of your meetings. Contributions of US \$35 to help defray cost of publication would be most appreciated. Please send contributions or news items to:

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CBSG Mission Statement

The mission of the Conservation Breeding Specialist Group is the conservation or establishment of viable populations of threatened species.

1. Organize a global network of people and resources.
2. Collect, analyze and distribute information.
3. Develop global conservation breeding programs.
4. Integrate management programs for captive and wild populations.

ARAZPA Regional Report



Membership

The Australasian Regional Association of Zoological Parks and Aquaria currently represents 45 zoological institutions and 11 associated institutions. ARAZPA membership also includes 162 individual members working in, or associated with, the zoo and aquarium community.

At the Annual General Meeting of the Association this year, the membership approved some changes to ARAZPA's structure. The main effect of these changes is an expansion of ARAZPA's individual member program. Individual members of the Association will now elect and be represented by, two ARAZPA Board members. These members will drive a number of specialist groups within the region, each focusing on a core area of zoo expertise or interest. Current groups, which include some that have been operating productively in the region for many years, cover: animal husbandry, animal records keeping, education, marketing, zoo research, taxonomy, veterinary science, horticulture and South-East Asian conservation action. ARAZPA facilitated a workshop in September, to identify ways of using these groups more effectively to encourage professional development and networking opportunities for those involved and to improve ARAZPA's cross-disciplinary delivery of conservation.

Policy Development

ARAZPA updated its Code of Practice, Constitution, and Animal Transaction Guidelines. In response to the expansion of ARAZPA's policies and codes in recent years, the Association has produced the *ARAZPA Policy Handbook*. The *Handbook* contains in one place, all of the membership-endorsed documents guiding the operation of the Association, plus a record of all changes made to these documents over time.

ARAZPA Branches

The ARAZPA Board approved in principle, the establishment of a New Zealand branch office for the

Association. This would enable ARAZPA to improve services to existing New Zealand members and to expand membership in that area of the region. Perhaps most importantly, the new position would coordinate and facilitate assistance to the captive components of wildlife agency species recovery initiatives in New Zealand. The position is expected to be in place next year.

Australasian Species Management Program (ASMP)

An ASMP workshop for organisational heads of ARAZPA institutions was held at Adelaide Zoo in August. The purpose of the workshop was to provide information and facilitate discussion, on a number of important issues currently affecting ASMP processes. Issues discussed included: government interpretation of new CITES I provisions, implications for zoos of recent changes to ASMP regional collection planning processes, and current initiatives to develop the next generation of zoo animal records software. Points raised in these discussions will be used to inform future policy decisions.

Environment Australia, which operates as the CITES management authority for Australia, has agreed to recognise species management programs organised by the ASMP, as "Cooperative Conservation Programs" under the new CITES regulations. This is a welcome endorsement of the ASMP's underlying principles of sustainability and conservation.



New Regional Planning Documents

The ASMP produced the first of its new regional collection planning documents – *The Exotic Mammal TAG Action Plan*. This document, which covers all exotic mammal taxa held in, or planned for, the Australasian region, includes: the principles underlying TAG decision-making processes, the rationale behind each recommendation, target population sizes, agreed management units, a list of “actions” for the TAG for the coming year and a list of recommended changes to institutional REGASP data.

New Species Action Plan Folders

The first of the new *Species Action Plan* folders was distributed to ARAZPA members. These folders, one for each TAG, compile in a loose-leaf, easily updated format, all current management strategies for ASMP species managed under that TAG.

Collaboration with ISIS

ARAZPA has once again been operating as an International Species Information System (ISIS) branch, providing localised services to Australasian ISIS members. Discussions with ISIS to formalise the role and duties of an ISIS branch office are ongoing.

Representatives from Australasia, North America and Europe gathered to discuss the future of collection planning software. Development of REGASP has continued, incorporating some of the ideas from this workshop. REGASP-LINK, the program which allows the incorporation of regional priorities, recommendations and classifications into REGASP, was customised for use in Europe.

Training

Training undertaken by ARAZPA staff in the past year included:

- Teaching Captive Population Management for Charles Sturt University. The subject is taught annually as a 16-week distance learning course that includes a three-day residential school.



- Teaching the use of ISIS software to staff of ARAZPA institutions. A four-day course was run in Queensland, and included staff from four ARAZPA institutions.
- One-on-one training at the ARAZPA office was provided to a number of staff from ARAZPA institutions. Programs taught included ARKS, SPARKS and REGASP.

Education


ARAZPA's Education Specialist Advisory Group continued its ASX Frog Focus initiative – an Australia-wide schools education program monitoring threatened frog populations. The Group also once again judged the Readers Digest Awards for environmental schools programs. A regional education policy was drafted for submission to the ARAZPA Board.

Publications

ARAZPA publications produced during the 2000-2001 period include:

- 2001 Regional Census and Plan for ARAZPA Zoos and Aquaria.
- Exotic Mammal TAG Action Plan 2000.
- ARAZPA Policy Handbook.
- ASMP Procedures Manual, 3rd Edition.

ARAZPA also publishes quarterly editions of the ARAZPA Newsletter, reporting news of regional developments and zoo and aquarium activities.

In addition, a total of 78 studbooks were submitted to ISIS for publication on the *ISIS/WZO Studbook Library CD ROM*. 

Submitted by Caroline Lees



AZA Regional Report



The American Zoo and Aquarium Association (AZA) represents 201 zoological institutions and nearly 6,000 zoo and aquarium professionals. The following are some of the activities completed during 2000-2001.

Conservation and Science

Conservation Program Oversight

AZA currently administers 381 studbooks, 178 Population Management Plans (PMPs) covering 229 species, 102 Species Survival Plans (SSPs) covering 145 species, 45 Taxon Advisory Groups (TAGs), 10 Conservation Action Partnerships (CAPs) and 11 Scientific Advisory Groups (SAGs).

Population Management/SSPs

- *Population Management Center*: In 1999, the AZA board approved expenditures of \$100,000 from the CEF to help create an AZA Population Management Center as a 2-year pilot project. In January 2000, the PMC was authorized to begin at 2 AZA institutions in Chicago: the Chicago Zoological Society (Brookfield Zoo) and the Lincoln Park Zoo.
- *Group Population Management*: The second Group Population Management Workshop was held in Seattle in October 2001.
- *New Species Survival Plans*: Six taxa were added to AZA's list of SSPs this year.

Data Management

- *Animal Data Information Systems Committee*: The AZA board charged AZA's Animal Data Information Systems Committee to continue to examine the potential for developing a new global animal database. The action steps include collaborating with ISIS on a new data clean-up initiative, developing data standards, and developing a financial plan.

Strategic Collection Planning/TAGs

- *Institutional Collection Planning Workshop*: was held in Colorado Springs, CO, March 2001.
- *Marsupial and Monotreme 'Species Summit'*, along with ARAZPA, was successful in its

endeavors to evaluate the feasibility of the AZA M&M Regional Collection Plan.

- *New Taxon Advisory Groups*: Elephant, and Pangolin, Aardvark and Xenarthra.

Field Conservation/Conservation Action Partnerships

- *Field Conservation Resource Guide*: was edited, formatted, updated, and published. Proceeds from the sale of the book will support the conservation and science work of AZA.
- *AZA in Action*, available on the AZA website: (www.aza.org) the catalog provides a listing of high-quality conservation and related scientific and educational opportunities in need of support.
- *Unified Field Conservation Initiative*: AZA has drafted a white paper that outlines the potential for a unified AZA Field Conservation Initiative.
- *Field Conservation Committee Long-range Plan*: was used to inform development of the AZA Long-Range Plan. A number of exciting efforts are underway.

Partnerships

- *Bushmeat Crisis Task Force (BCTF)*: The consortium now consists of 29 supporting and contributing organizations that provide financial and other support for efforts to stop the illegal, commercial bushmeat trade in Africa.

Conservation Planning

- *BCTF Collaborative Action Plan*: This highly successful meeting, held at Conservation International in Washington DC, resulted in the identification of many areas on which BCTF and its partners will be focusing their attention in the next three years.
- *Butterfly Conservation Initiative*: The overall goal of this fledgling Initiative is to stabilize the 21 federally listed species of Lepidoptera in the U.S.



- *AZA Long-range Plan, KRA III:* A senior staff and Board members met in May 2001 to discuss and update AZA's Long Range Plan. The AZA Board approved the Plan in August and work will now commence identifying specific action items.

Animal Welfare

- *Animal Care Standards for AZA institutions:* The AZA animal Welfare Committee developed a format for the production of animal care standards. It is in the process of modifying AZA's Minimum Husbandry Guidelines for Mammals into this format.
- *Elephant Management and Care Standards for AZA institutions:* The AZA Standards for Elephant Management and Care were published and sent to all AZA institutions.
- *Animal Welfare Committee Long-range Plan:* The Animal Welfare Committee's charge is to incorporate animal welfare considerations into all aspects of AZA's cooperative programs. The Committee formulated a long-range plan, which was incorporated into the AZA Long-range Plan.
- *Training and Enrichment Course at AZA Schools:* for Zoo and Aquarium Professionals.

Science and Scientific Advisory Groups (SAGs)

- *Science and Technology Special Committee:* continues to work on its report addressing the current state of science in AZA institutions.
- *Reproduction SAG:* The AZA Genome Banking Advisory Group has evolved into a Reproduction Advisory Group.

Fund-raising for Conservation

- *Conservation Endowment Fund (CEF):* In 2001, the AZA CEF received a total of 41 proposals, representing \$841,670 in requests. The CEF Scientific Advisory Board recommended that \$310,215 be awarded to support 17 projects.
- *West Nile Virus:* in conjunction with the American Bird Conservancy, AZA raised \$25,000 to support the development of an avian vaccine for the West Nile Virus.

Publications


- *AZA Annual Report on Conservation and Science.*
- *Great Apes and Humans: The Ethics of Coexistence.*
- *Grzimek's Animal Life Encyclopedia*

Government Affairs

- *Legislative Conference:* Was held to address government affairs issues relevant to AZA members and to raise congressional awareness of their efforts.
- *Capitol Hill Event:* AZA organized an evening reception featuring members' work in field conservation on Capitol Hill. Speaker of the House Dennis Hastert hosted the event, which featured Jack Hanna, Newt Gingrich and Congressman Wayne Gilchrest.
- *Multinational Species Conservation Fund:* AZA was part of a broad coalition of conservation NGOs seeking an increased funding for the Multinational Species Conservation Fund (MNSCF) account for FY 2002.
- *Foot and Mouth Disease:* on 3 May, 2001, USDA held a meeting with invited guests from AZA and AAZV to discuss the agency's foot-and-mouth Disease Emergency Guidelines that were last revised in June 1992.
- *West Nile Virus:* In June 2001, Lincoln Park Zoo and the Centers for Disease Control and Prevention co-hosted a meeting to discuss the feasibility of integrating Zoos in to the national West Nile virus surveillance system.

Accreditation and Membership

- *New Institutions:* AZA re-accredited 30 current institutions for another five years. In addition, AZA accredited 12 new institutions, and two new related facilities. AZA now has a total of 201 accredited institutions.
- *Accreditation Standards:* AZA continues to strengthen its accreditation standards. This year, additions to the standards include evaluation of enrichment items and requirement for institutional collection plans. AZA has also enhanced its training program for accreditation inspectors and developed an orientation session for institutions preparing for accreditation.

For more detailed information please visit the AZA website: www.aza.org 

Submitted by Michael Hutchins, AZA

CZA India Regional Report



Central Zoo Authority

In India the functioning of the zoos is regulated under an Act passed by the Parliament of the country. This Act, known as, Wildlife (Protection) Act, provides legal framework for laying down standards and norms for housing, upkeep, veterinary health care and administrative framework for proper management of the zoos. These norms were formulated in 1992 and are known as "Recognition of Zoo Rules". Central Zoo Authority has been given the mandate to oversee and regulate the management of zoos in the country. It is an autonomous body headed by a chairperson (Minister, Environment and Forests, Government of India), a Member Secretary and ten members, out of which three are officials from the Ministry of Environment and Forests and the rest seven are non-officials having background in zoo management and designing, education and outreach, veterinary profession and animal welfare. The Central Zoo Authority is reconstituted every three years. The present Central Zoo Authority has been reconstituted on 1 March, 2001.



Accreditation To Zoos

283 zoos which are operational were evaluated by the Central Zoo Authority with respect to Standards and Norms prescribed in the Recognition of Zoo Rules, 1992. Out of this only, 177 large, medium, small and mini zoos were found have potential to come up to the requirement of the Recognition of Zoo Rules, 1992, and consequently been granted conditional recognition by the Central Zoo Authority. Out of these 177 zoos, which are currently recognized by Central Zoo Authority, 120 zoos are small facilities, which are classified as Mini Zoos or Deer Parks. These zoos display very few species of animals viz. *Axis axis*, *Cervus unicolor*, *Antelope cervicapra* and common species of birds and reptiles. The rest of the zoos numbering 57 are major zoos in the country housing a total of 34,375 animals as on 1.4.2001 (Mammals -

12,028, Birds - 14,503, Reptiles - 7844). Central Zoo Authority brings out a compilation every year giving inventory of all these 57 zoos giving species wise information on their numbers including births, deaths, disposals & acquisitions. This document is made available to all zoo personnel, animal welfare organization and NGOs.

Out of the aforesaid 57 major zoos in the country, 14 zoos have been found non-viable at their existing site and therefore are being relocated to new sites. Apart from this, eight zoos have been asked to undertake complete renovation at the existing site itself as per a duly approved layout and by constructing open naturalistic enclosures in place of closed bar and cage type enclosures. Five zoos, which have not found to be complying with the guidelines of Central Zoo Authority have been asked to close down.

The zoo management in India suffered a serious crisis due to 13 deaths of tigers in about a fortnight in June - July, 2000 in a zoo in the State of Orissa. This sad episode underscored need for reappraisal of the management of the zoos in the country.

In order to bring about a holistic change in the functioning of the zoos in India, the standards and norms in management of zoos prescribed in

1992 was amended on 10 July, 2001. As a result of these amendments, the zoos are now required to be more accountable to conservation of endangered species of wild fauna. Minimum qualifications have also been fixed for the personnel at the level of Curators and veterinary officers. In order to meet the biological and behavioural needs of the zoo animals, minimum dimensions for the paddock area have also been prescribed for important mammalian species.

Rescue Centres For Circus Animals:

Central Zoo Authority has been given additional responsibility of rehabilitating 360 Tigers and Lions with circus in the country by creating Rescue Facilities for these animals. Accordingly rescue facility have been created for housing these animals at five locations in the country. These centres are not part of zoos, but are located in separate complex away from it. A separate set of staff have been deputed to look

after the animals. No breeding of these animals is to be allowed. The main aim is to give these animals a quality living for rest of their lives at these centres.

Assistance to Zoos for Upgrading Housing and Healthcare Facility

The Central Zoo Authority continued to provide technical and financial assistance for upgrading the housing and veterinary facility in the zoos. A total of US\$ 2 Million (Rs 9 Crores) was released to the zoos during the financial year 2000-2001.

Training Programmes and Workshops

A fifteen-day course for Zoo Directors, on "Management of Endangered Species in Captivity" was organised at Vishakapatnam during February 2001. Regional courses for training of zoo keepers were organised by the Kanpur Zoological Park; Assam State Zoo, Guwahati; Nehru Zoological Park, Hyderabad; Sri Chamrajendra Zoological Park, Mysore; Nandankanan Biological Park, Bhubneswar and Arignar Anna Zoological Park, Chennai.

Shri B.S. Bonal, Director, National Zoological Park, New Delhi and Dr. Abhijit Biswas, veterinarian from Alipore Zoo Kolkata were deputed by the Central Zoo Authority for attending a short course on conservation of endangered species at the summer school of Durrel Wildlife Conservation Trust, U.K.

An annual workshop of Zoo Directors from all major zoos of India was organised during February 2001, with a focus on collection planning of animals in zoos and conservation breeding of endangered species of wild fauna. A workshop on planned breeding of Pheasants was held in collaboration with the World Pheasant Association (WPA), at Morni in the State of Haryana. Zoos exhibiting endemic endangered pheasants participated in the workshop as resource persons. The Vice presidents of WPA, Mr. Garry Robbins and Mr. John Corder and honoured guest of WPA India and CZA participated in the workshop.

As a follow up to the workshop, a regional training programme is proposed to be conducted in Himachal Pradesh very shortly.

First annual convention of the Association of Indian Zoo and Wildlife veterinarians was held in New Delhi during the month of April, 2001. A workshop was

conducted by the Association on "Basics of Captive Wild Animal Management" in collaboration with the Central Zoo Authority and Indian Veterinary Research Institute.

Planned Breeding Programmes and Research

Central Zoo Authority is actively pursuing the planned breeding of the endangered species of animals in Indian zoos. Among the important births that happened during the year under report were 18 *Cervus eldi eldi*, 14 *Cervus duvauceli duvauceli*, 5 *Panthera uncia*, 7 *Panthera leo persica*, 4 *Ailurus fulgens*, 1 *Manis crassicaudata* and 4 *Caloenas nicobarica*.

The Central Zoo Authority, in collaboration with the Wildlife Institute of India, has prepared national pedigree books for 5 species, namely Bengal Tiger, Asiatic lion, One horned Rhino, lion tailed macaque and Golden langur.

A Laboratory on Conservation of Endangered Species (LaCONES) is being set up adjacent to the Nehru Zoological Park, Hyderabad under the Centre for Cellular and Molecular Biology. The Central Zoo Authority and Department of Biotechnology, Government of India are providing financial assistance for the Laboratory. Once set up, the Laboratory will carry out the following functions:

- i. Monitoring of genetic variation by DNA fingerprinting.
- ii. Establishment of gene bank
- iii. Semen analysis
- iv. Determination of time of ovulation.
- v. Artificial insemination and
- vi. In vitro fertilization and embryo transfer in wild animals.

Publications:

The Central Zoo Authority in collaboration with the Indian Zoo Directors Association (IZDA) and Association of Indian Zoo and Wildlife Veterinarians (AIZWV) has brought out the 3rd volume of the Compendium on "Health and Disease Management", a handbook on the "Dietary Husbandry of Wild Mammalia" and "Restraint and Translocation of Wild Mammals".

Submitted by Sally Walker

EAZA Regional Report



The European Association of Zoos and Aquaria (EAZA) held a three-day long future search meeting in early April 2001 in St. Aignan (France) to discuss strategic issues and to determine action priorities for the next few years. A draft "Strategy for the Beginning of the 21st Century" is the first result of the planning process that will be ongoing for considerable time in order to involve all members, committees, special interest groups- and in fact the entire European zoo and aquarium community- in the reflection on their common future.

Collection Planning, TAGs, EEPs and ESBs.

Collection plans

At the annual meeting of EAZA TAG chairs in Aalborg (Denmark) on 19 September 2000, it was agreed that all TAGs would have at least the first version of their regional collection plan ready. Afterwards, was the need to work on standardising the regional collection plans and their implementation. To this end, the 2001 EAZA Conference in Prague has collection planning as one of its two main topics.

REGASP

In November 2000 a meeting was held at the EAZA Executive Office (Amsterdam) in which several EAZA TAG chairs and Kevin Johnson of ARAZPA participated, and where the needs for an EAZA version of REGASP were determined. The EAZA version will be ready for demonstration and use by the 2001 Prague conference.

Lower Vertebrates and Invertebrates

EAZA recognises that lower vertebrates and invertebrates have been and to a large extent still are quite neglected by the zoo community outside the specialised aquaria. A three day meeting of the various TAGs that cover these taxa is planned for Spring 2002.

EEPs

The guidelines for EEP Coordinators have been revised during the year 2000 and were distributed among all members of EAZA early in 2001.

Revision of Non-EAZA Participants in EEPs

Earlier this year the EAZA Executive Office requested all EEP coordinators to carefully review the non-EAZA participants in their programme, and make recommendations to the EEP Committee, through the EAZA Executive Office, whether or not these participants should remain in the programme. These recommendations could be based on the importance of the animals held by the participant, the importance of the holding space provided by the participant, the level of cooperation within the programme and so on.

EEP Animals at Institution that Leaves EAZA Membership

When the EAZA membership of an institution is terminated, or if an institution closes down, EEPs may be faced with a situation where important animals are moved out without any involvement of the coordinator and thus lost for the programme. Legally there is little that can be done to retain the animals at such an institution in the EEP. EAZA will prepare a document to convince EU member states to make it compulsory - in the framework of the EU Zoos Directive - to contact EAZA about placement of important animals in case a zoo is closed.

New Programmes

All TAGs, EEPs and ESBs and their respective coordinators can be found on the EAZA website (www.eaza.net).

Inter-regional Cooperation

EAZA TAGs, EEPs and ESBs are actively stimulated to cooperate closely with their counterparts in other zoo regions. Especially in the development of long-term plans, such as regional collection plans developed by the TAGs, it is important that the various regions do work closely together to make the best use of the limited resources that are available to us.

EAZA and ARAZPA are also seeking successful and sensible ways to cooperate more closely in the inter-regional management of a number of species.

Publications and communication

Yearbook

For the first time ever the Yearbook will be published as (707 page thick) hard copy and on CD-ROM (and thus be ready for immediate publication on the EAZA Resource Centre once this is established).

EAZA Resource Centre

The EAZA website will shortly contain a 'members only' area which can be entered by EAZA members with the use of a unique password. This area will contain loads of useful information, such as the Yearbook and EEP and ESB annual reports, husbandry guidelines, minutes of various meetings, the Available & Wanted List online, etc.

TAG Survey

The EAZA TAG Survey ninth series was published, covering: amphibians; Asian freshwater turtles; Pelecaniformes and Podicipediformes; storks; threatened waterfowl, swans and screamers; megapodes and grouse; hornbills; pigs and peccaries; and cattle. Some 250 European zoos provided animal inventory and collection planning data to assist in making this cooperative effort a success.

EAZA in situ Conservation Database

The EAZA Annual Conference in Prague will provide the venue for the EAZA Conservation Committee to present the EAZA *in situ* conservation database. Information on the nature and scope of *in situ* conservation projects supported by EAZA members will be included in the database. A CD-ROM with software for easy data entry will be distributed to all EAZA members in Prague.

The EAZA *in situ* Conservation Database will be available on the web in due course. Members will then be able to go online to enter current data on their own work and to generate various reports on all EAZA member projects and -most importantly- to search for projects they too would like to support.

EAZA Campaigns

Bushmeat

The European Association of Zoos and Aquaria's efforts to help address the bushmeat issue continue strongly with our EAZA Bushmeat Campaign. The main thrust of the campaign, which is supported by IFAW, the International Fund for Animal Welfare, is to raise awareness of the issue among our millions of zoo visitors and to collect signatures for a petition aimed at leaders in the EU and at African leaders. For more about the Bushmeat Crisis see pages 19-21.

Rainforest

For information on the Atlantic rainforest of coastal Brazil campaign see page 35.

ISIS European Branch Office

Since the end of 1999 the EAZA Executive Office acts as the ISIS European Branch Office. This office has two main aims, being 1: increase of ISIS membership among EAZA members, and 2: increasing quality and quantity of data provided by EAZA's members to ISIS.

Various Issues

English Language Courses

EAZA has at its inception adopted English as its language course. Since the association has members from 34 different countries, where probably well over twenty-five different languages are spoken, the EEP Committee accepted a proposal to partly fund English language courses for zoo staff who are involved with or want to become involved with the running of a TAG, an EEP or an ESB.

Legbands

The EAZA Executive Office initiated a service through which EAZA members can order high-quality coloured legbands for birds. Initially legbands for flamingos and pelicans have been provided, and this proved to be a major success with well over 3,000 bands ordered.

Giant Pandas

Representatives of the Berlin Zoo, Chester Zoo, Vienna Zoo, the EAZA Bear TAG and the EAZA Executive Office met at Amsterdam Airport on May 9 by invitation of the Ouwehands Zoo, Rhenen (Netherlands). Keeping giant pandas in European zoos as well as *in situ* and *ex situ* research were among the topics extensively discussed. 🐼



Submitted by Koen Brouwer

PAAZAB Regional Report



The African Preservation Programme (APP) is a co-operative conservation management programme administered by a standing subcommittee of PAAZAB (Pan African Association of Zoological Gardens, Aquaria and Botanic Gardens).

New Mission Statement

The co-operative management of species. The new mission statement has been approved by the PAAZAB Executive and now allows for non-African (exotic) species to be included in our APP programmes.

African Mnemonics

The list of African mnemonics used in our ARKS and SPARKS programmes (ISIS) is currently being updated.

Studbooks and Conservation Programmes

During the past year no new APP s were added to our list. A few APP s did not perform due to a number of reasons and have accordingly been re-evaluated by the APP Committee.

There are currently 23-registered APP s.

Ten (10) regional studbooks were published during the past year viz.

- Reptiles (1)
- Birds (5)
- Mammals (4)

The following are brief reports on some of our APP conservation projects.

1. Madagascan Radiated Tortoise (*Geochelone radiata*)

Although no studbook was published in 2000, the 2001 edition listings have increased from 98 to 128, of which 97 are living. However, 43 of these are held in Mauritius and relatively unavailable to the South African portion of the propagation group. Laparoscope and DNA sexing is being investigated to assist the hereto inaccurate sex management of our collections.

2. Blue crane (*Anthropoides paradiseus*)

The eighth edition of this regional studbook was published in August 2001. Of all registered specimens, 61,4% are captive hatched and 35,6% have been hand reared as apposed to 44,3% parent reared (about 20% are of unknown rearing type).

3. Southern Bald Ibis (*Geronticus calvus*)

The current regional studbook lists 185 (61.51.73) individuals of which 88 (30.27.31) are currently living in captivity at five locations on the African continent. Hatchings were recorded at only two institutions.

4. Wattled Crane (*Buggeranus carunculatus*)

The first edition of this studbook was published last year and has 122 historical listings of which 41 are living.

5. African Wild Dog (*Lycaon pictus*)

During the year 2000 there were 71 (21.20.30) births, 24 (5.1.18) deaths and 10 (3.7.0) releases. The total living population on record at the end of 2000 was 313 (132.121.60) an increase of 24,7% over the previous year.

6. Cape Gysbok (*Raphicerus melanotis*)

The 2001 regional studbook gives a historical listing of 116 (51.61.4) individuals of which 48 (19.27.2) are living in South African institutions.

Submitted by Dr Ferdi R Schoeman
(APP Chairman)

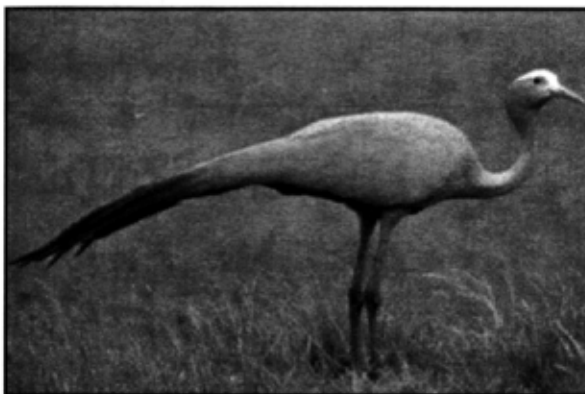


Photo courtesy of Yolan Friedmann

CBSG Mesoamerica Report



Jaguar PHVA Workshop

November 27 December 1, 2000

With the participation of 45 persons from universities, governmental agencies and staff of the Mesoamerican Biological Corridor Program, the status of the jaguars in the Region was analyzed on a country by country basis.

The studbook of the species, presented by AMACZOOA, was also analyzed.

A conservation strategy, that included husbandry, genetic management, education and veterinary programs, was established by the participants.

This workshop was facilitated by Dr. Ulysses Seal, President of CBSG/SSC/UICN, with the support of Dr. Phil Miller of the same institution. It was financed by Chester Zoo and AMACZOOA. Two persons from WCS Jaguars Program, Scott Silver and Kathleen Conforti participated and explained the work that they are doing in the Region. The report is in preparation



In-situ Conservation Project Identification Workshop, World Association of Zoos and Aquariums (WAZA), Latin America and the Caribbean.

January 22-24, 2001

At request of WAZA, AMACZOOA organized the Workshop, held at Simon Bolivar Zoo, San Jose, Costa Rica. Thirty-five Zoo Directors participated from Argentina, Chile, Brazil, Uruguay, Peru, Ecuador, Colombia, Venezuela, Nicaragua, Honduras, El Salvador, Mexico, Guatemala, Cuba and Costa Rica. Representatives from the principal Zoo Associations also participated in the workshop. Two reports of this meeting, one in Spanish and the other in English, were produced.

Cuban Plants CAMP II. The Serpentes *National Botanical Garden, La Havana, Cuba, March 12-15, 2001.*

This workshop was facilitated by Yolanda Matamoros, with the support of Sonia Alpizar. Seventy-two species of three serpentes ecosystems were analyzed by 25 Cuban botanists. During the last day, recommendations for the conservation of these ecosystems were produced. There was a consensus that the serpentes are part of the Cuban natural heritage. A report was produced and printed.

Mexican Manati PHVA

*ZOOMAT, Chiapas,
Mexico, April 2-6, 2001.*

Forty specialists in manatees and stakeholders from the Southern part of Mexico met at ZOOMAT to analyze the situation of manatees in the region. Four working groups were established: population biology, education, law enforcement, and community. The results of their work showed a detailed

analysis of different aspects of the conservation of the species, the recommendations were according with the economic situation of the towns, villages, researchers and educators present. The draft report is under revision by the participants. The workshop was financed by Sea World Orlando.

Zoo Conservation Strategy

During the week of July 23-27, Dr. Ulysses Seal facilitated the beginning of the Zoo Conservation Strategy for FUNDAZOO, the foundation that runs the two governmental zoos of Costa Rica. This process will continue during the third week of November.

Reports Finalized

Cuba Animals CAMP 1998

Cuba Animals CAMP 1999

Translation

During this year the office translated the CAMP electronic program to Spanish. ■

Submitted by Yolanda Matamoros

CBSG South Africa Report



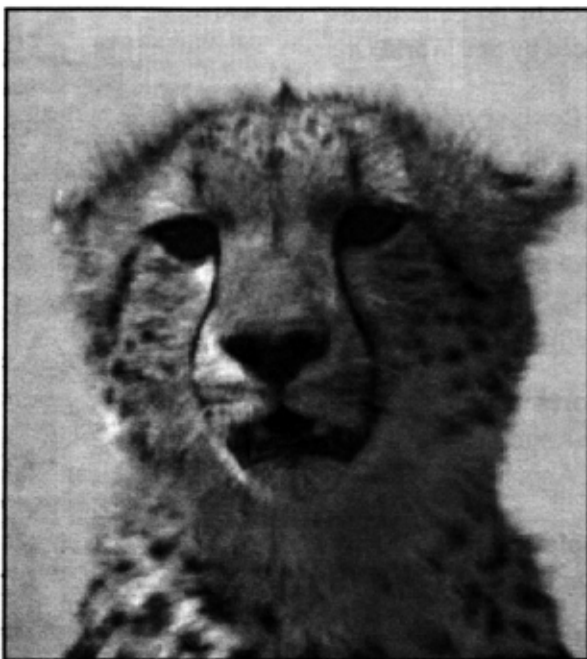
Introduction

CBSG South Africa, just over a year old, operates under the banner of the Endangered Wildlife Trust, one of the largest conservation non-government organisations in Southern Africa. CBSG South Africa (CBSG SA) has a membership of about 50, which is growing rapidly.

Activities during 2001

Global Cheetah Conservation Action Plan Workshop

Held in South Africa from 27-30 August 2001, and facilitated by Susie Ellis, it was attended by 53 delegates from 10 countries. Working group topics included education and communication, veterinary and research, census methods for cheetah, conservation of cheetah outside of protected areas, coordinating in situ and ex situ data collection and analysis and studbook management. This workshop also resulted in the establishment of a global Cheetah Interest Group (CIG) which will be formalised at a follow up workshop to be held in Johannesburg in July 2002. CBSG South Africa is currently the acting secretariat of the CIG.



Blue Crane PHVA

Held in the Cape 1st – 4th October 2001 and was facilitated by Yolán Friedmann. Phil Miller and Onnie Byers assisted with “remote” facilitation and Vortex modelling via e-mail due to cancelling their trip to South Africa after the New York attacks.

PAAZAB

The Pan African Association of Zoos, Aquaria and Botanical Gardens (PAAZAB) annual meeting was held from the 19th – 22nd June 2001. Yolán Friedmann delivered a report-back on CBSG South Africa with much enthusiasm being shown for CBSG in general.

CBSG and WAZA Annual Meetings

Yolán Friedmann also attended these meetings on Rottnest Island in Australia in October 2001. Reports in CBSG South Africa and the EWT were delivered.

Bushmeat Crisis Task Force

CBSG South Africa is investigating ways of establishing a closer relationship between the EWT/CBSG SA and the Bushmeat Crisis Task Force (BCTF) regarding the bushmeat crisis. Michael Hutchins of the AZA delivered a report-back on the BCTF at the PAAZAB meeting and discussions were held regarding involving the EWT/CBSG SA more in their efforts to raise awareness of this issue and to partake in grassroots projects addressing it. The EWT is involved in many community conservation and educational projects and through the CBSG SA/EWT network there is much room for collaboration and cooperation.

Funding

A **BIG** Thank-you to the following for supporting CBSG SA:

- Vision Computers: Laptop computer.
- Nestle: Funding for equipment and training.
- British Airways Assisting Conservation.
- The Lomas Wildlife Trust, CBSG and the EWT: Core funding.
- PAZAAB: Sponsored registration of the annual conference.
- Bill Yeowart: Core funding.



Plans for 2002:

Structure

The EWT and CBSG have supported the motion to develop CBSG SA into a full-time project with Yolán Friedmann running CBSG SA as a full-time project under the EWT banner.



Sea Bird CAMP:

A CAMP for 15 species of sea birds will be held between the 4th – 8th of February 2002 in Cape Town. The Avian Demography Unit of the University of Cape Town is hosting the workshop which will be facilitated by Onnie Byers.



Blue Swallow Action Planning Workshop:

To be held from the 10th - 14th of June 2002 in conjunction with BirdLife South Africa. The Blue Swallow is the most endangered bird in South Africa but has an enormous range of approximately ten Southern African countries – hence this workshop will attract participants from across Southern Africa.

Honey Badgers

A conflict resolution workshop for honey badgers, which are persecuted at an alarming rate in South Africa, is being planned for 2002. A PHVA for the two South African honey bee species (*Apis Scutellata* and *A. Capensis*) has also been requested and will be held in November 2002.

VORTEX Clinic

This will be a five-day course and will train users on the Windows version of VORTEX. Dates are still to be finalised but will be around April or June 2002.

South African Mammal CAMP

CBSG South Africa and the Endangered Wildlife Trust will be undertaking a CAMP for the land and sea mammals of south Africa between the 22nd and 27th of March 2002. The CAMP is being done as a means of updating the current Red Data Book for South African mammals which was done in 1986 (Smithers). CBSG SA will be driving this process which will be facilitated by Onnie Buyers, John Williams and Craig Hilton-Taylor from the IUCN Red List Office. The project has a number of partners including the University of Pretoria, the National Research Foundation and other South African government departments and conservation organisations.

Biological Resource Banking Workshop:

An update to the 1994 GRB workshop has been proposed for May 2002 as a precursor to the annual PAAZAB meeting. This workshop will bring together the different projects working on collecting and banking biological resources from wildlife and indigenous livestock in South Africa and to develop a combined strategy to further develop BRB as a conservation tool for South African natural resources.

Disease Risk Workshop

Doug Armstrong (Omaha's Henry Doorly Zoo) has proposed that the next Disease Risk Workshop be held in South Africa in September 2002. This workshop will be hosted by CBSG South Africa and the National Zoological Gardens of South Africa and will offer the local conservation and research community an opportunity to explore, become familiar with and assist in further developing the tools and programmes available for quantifying, analysing, characterising, and dealing with diseases in wildlife populations. 🐾

Submitted by Yolán Friedmann



CBSG South Asia Report



CBSG, South Asia is an activity of Zoo Outreach Organization, ZOO, in collaboration with the Wildlife Information Liaison Development, WILD, in Coimbatore. ZOO also hosts CBSG, India which was the first CBSG network, started in 1991. CBSG, South Asia was formed to integrate activities of different CBSG national networks in South Asia and to catalyse and facilitate CBSG workshops in other countries of South Asia.

Objectives

- To maintain and support taxon networks for the region.
- To advise and assist CBSG national networks in South Asia.
- To provide impetus for CBSG workshops and specialist training in the region.
- To provide technical and educational material to zoo and wildlife personnel in the region.
- To bring taxon specialists from the region to the attention of SSC, IUCN.
- To organize at least one significant conservation event per year involving all countries and both zoo and wildlife persons.

Obstacles

South Asia is the area that used to be called the Indian subcontinent. It consists of Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan, Sri Lanka. The region has immense political, social and economic problems which present frequent and serious obstacles to conservation action. Much of the energy of CBSG South Asia goes into attempting to find a neutral venue for an annual meeting and scheduling meetings which have to be cancelled due to some of these problems.

Regional Zoo Association Project

In 2000, CBSG, South Asia organized a series of events in Kathmandu, Nepal which resulted in the initiation of a South Asian Zoo Association for Regional Cooperation. This zoo association is an important project of CBSG South Asia because, due to the nature of the region and its institutions, our membership consists mostly of field biologists and academics and we have to work to involve zoo directors.

The Kathmandu meeting was full of good results, some of which are listed below, taken from a Report from the Karachi Zoo and Safari Park which made significant changes :

Karachi Zoo & Safari Park a) changed their focus to indigenous animals suitable for *ex situ* conservation, b) started maintaining records of animal origin for the first time, c) initiated habitat development of enclosures according to ecological principles, d) established contact with Sindh WL department and private zoos for improvement of cooperation for breeding of indigenous fauna, e) conducted a visitor survey and focused an education programme around it, f) got education budget equivalent to \$200,000.00 (200,000 Pakistan rupees) for zoo and safari park, g. initiated improvement / development of signage, initiated cooperation with local experts such as WWF, Zoological Survey of Pakistan and IUCN.

In Other Countries

Bangladesh — a Government sponsored Redevelopment programme for Dakha and Rangpur Zoos was initiated and zoo personnel sent for further training by IUCN country office.

Sri Lanka — Lyn de Alwis, former Director of Colombo Zoo, became SAZARC advisor.

India — increase in educational activities and budget by participating zoos run by steel and municipal authorities.

Nepal — Director of zoo won an award.

Membership

CBSG South Asia has 49 members. Membership focus goes to the national networks, which have many members. Membership in CBSG, South Asia is primarily for persons with interests in more than one country in the region and zoo directors who have attended the regional CBSG meetings.

Taxon Networks

A unique feature of CBSG, South Asia is its taxon and disciplinary networks, based on the concept of IUCN SSC Taxon Specialist Groups. These groups consist of the following subjects and members:

Invertebrate network	398	+ members
Amphibian network	176	+ members
Reptile network	130	+ members

Chiroptera network	72	+ members
Rodentia, etc. network	32	+ members
IZE Asia (zoo ed) network	165	+ members
CBSG India network	113	+ members
CBSG S. Asia network	49	+ members

Upcoming Activities

- Regional CAMP workshop for Chiroptera, 25-29 January 2002, Madurai, Tamil Nadu.
- Regional CAMP workshop for Primates, 5-9 March 2002, Coimbatore, Tamil Nadu.
- Regional CAMP workshops for Amphibians, Tetrapod reptiles and Rodentia are likely to be held in 2002.

CBSG, India

Sanjay Molur, Coordinator

CBSG India activities 2000-2001

- Published Report of the Western Ghats Endemic orchid CAMP workshop to be followed by a book on same.
- Conducted Non-Timber Forest Produce (NTFP) CAMP workshop for Nilgiri Biosphere Reserve in collaboration with Indian Institute for Forest Management, December 2000, Coimbatore.
- Facilitated Medicinal Plants CAMP for State of Maharashtra.
- Co-organised Training workshop in field techniques, identification and taxonomy of Eastern Hemisphere Tarantula - September 2001, Parambikulam along with ICINSA, WILD, ZOO with US Fish and Wildlife Service support.
- Presentation of paper on status of rain forest species in India organised by SACON - May 2001, Coimbatore.
- Review of Punjab State Biodiversity Report which utilized BCPP CAMP information extensively for species and habitats segment.

Plans for 2001-2002

- Hands-on training workshop in field techniques, identification and taxonomy of amphibians and reptiles - Assam.
- Collaborate with South Asia CAMP Workshops for Chiroptera, Primates, Amphibians, Tetrapod Reptiles, and Rodentia providing specialist from India.

CBSG, Sri Lanka

Anslem de Silva, Convenor

CBSG, Sri Lanka has over 50 members. CBSG, Sri Lanka assisted with planning of CBSG, South Asia meeting which had to be cancelled this year and will be assisting next year when we re-organize the programme. Other than that, we have had research and discussion meetings with active members on how to solve various conservation problems. Some projects are:

- Status and Ecology of the Golden Gecko *Calodactylodes illingworthi*.
- Herpetological Fauna Assessment of Mahaweli River Basins.
- Zoological Survey of entire Sri Lanka.
- Establishment of the Amphibian and Reptile Research and Conservation Centre.

CBSG, Sri Lanka is a collaborator in the upcoming International Herpetological Congress to be held in Colombo, Sri Lanka in December 2001. This Congress is so large and elaborate that all the energy of the network has been claimed for this project.

CBSG, Nepal

R. K. Shrestha, Convenor

CBSG, Nepal had its inaugural meeting in August 2000 when the organisation also hosted the first CBSG, South Asia meeting. CBSG, Nepal has 21 members and will have a planning meeting soon. A PHVA for Red Panda may be the first project. Other PHVAs for Wild buffalo, Rhinoceros and other species are under discussion.

Sponsors of Networks and Events

Dr. Nan Schaeffer via CBSG
 Chester Zoological Gardens, U.K.
 Lord Derby, Knowsley Park, Liverpool, U.K.
 Lord Robin Russell, Windsor Safari Park
 Bat Conservation International for CAMP
 Conservation International
 Primate Conservation, International
 Flora and Fauna International
 DAPTF, SSC, IUCN
 Thrigby Wildlife Park, UK
 Wildlife Information Network, UK
 Koln Zoo, Germany
 Appenheul Primate Park, Netherlands
 St. Louis Zoo, USA

Submitted by Sally Walker

CBSG Indonesia Report



- *15-20 January 2001, Indonesian Primate CAMP Workshop*

Indonesia contains among the most diverse array of primates on the earth. From the 32 families of primates in the world that are protected, most of them are Indonesian endemic primates, and Indonesia is home to every type of primate. During the last 10 years, Indonesian primatologists have increased the effort to monitor the status of *in-situ* and *ex-situ* primate populations.

Taman Safari Indonesia hosted a Primate CAMP Workshop to pull together expertise and formulate strategies in a participatory manner. The five day workshop was attended by 72 participants coming from diverse and relevant back ground, such as scientists, field primatologists, conservationists, universities, wildlife agencies, and entrepreneurs.

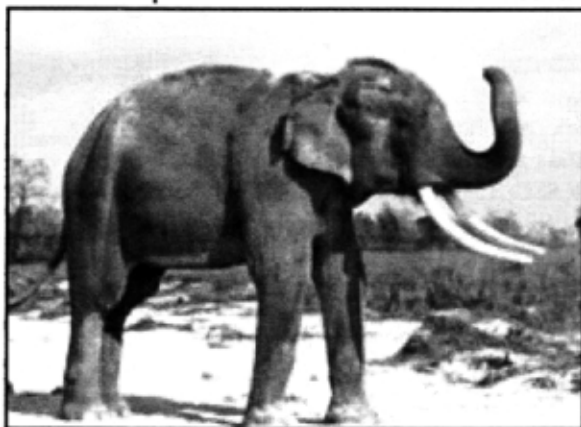
- *7-12 April 2001 Elephant Management and Vet Medicine Training*

Following up the Sumatran Elephant Conservation Workshop 2000 at Taman Safari Indonesia, Flora Fauna International held a workshop about Elephant Management and Vet Medicine. This workshop was a collaboration between CBSG Indonesia and PKA.

- *26-27 September 2001 Sumatran Tiger Rescue Workshop*

Regarding the recommendation of the Sumatran Tiger Master Plan, one of the priorities is to make a rescue team for saving the Sumatran tiger alive. With funding from National Fish and Wildlife Foundation, Taman Safari Indonesia held a workshop about the problems with tigers, and techniques for handling conflict between humans and tigers. This workshop involved the National Park and the Department of Forestry from 6 different areas who deal with the conflict. 🐾

Submitted by Jansen Manansang



Bushmeat Crisis

Working Group Report

The following questions regarding the Bushmeat Crisis were considered:

1. What has been done to date?
2. What has failed and why?
3. What has worked and why?

The following answers were suggested:

1. Isolated and limited pilot projects have been attempted: Cane rat farming, eco-tourism efforts, and human upliftment projects.
2. They have largely failed, which could be due to:
 - Many African cultures have no history or culture of livestock farming and cannot sustain it.
 - Western "handout concept" drives many communities to rely on western support.
 - Demand for wildlife products is still high and therefore demand driven.
 - Local communities want maximum profit and therefore the trade is driven by finances and not hunger.
 - Many agreements have been reneged on due to greed.
 - Tourism is unreliable due to political and economic instability of many African states.
 - Presence of western sport-hunters in many areas encourages local communities to hunt wildlife as a result of a "why-them-and-not-us" philosophy.
 - Political and economic upheaval in countries such as Angola, Congo and Zimbabwe drives communities to renege on agreements and makes policing impossible.
 - Projects which have failed are seen to be short-sighted and did not take into account cultural and political climates. It was felt that continued pressure on African and European governments and increased protection for and improved management of protected areas is the only solution.



photo courtesy of Martha Robbins

- Limited number of communities can get involved and as such there exists jealousy between communities who are inclined to sabotage projects.
3. In response to the third question of what has worked, Kenya and Uganda were taken as examples, in which the wildlife department and services were privatised (became parastatals) and are managed outside of the government body and corruption and the bushmeat trade has been considerably reduced. These efforts succeeded because they:
 - Focus on protected areas.
 - Assist local governments to manage their wildlife areas or manage them on their behalf.
 - Find resources, personnel etc. and put them in place under private management.
 - Have been managed by African communities themselves but with input and resources from outside (for e.g. Campfire, Maputo Elephant Reserve Game Guard project, Ugandan Wildlife and Kenya Wildlife Services).

- Audit projects (third party) to evaluate their success and effective use of funds and resources.

Resolutions

1. Institution building needed:

- Targeted protected areas increased.
- Develop institution building.
- External influence and support.
- Donor community.
- Political agendas.
- Political influence.
- Awareness in West.
- Understanding of complexities.

2. Zoos can:

- WAZA petition as per EAZA petition.
- Increased media pressure.
- Explain complexities.
- Invite direct letters of concern (letters etc.) to increase public pressure.
- Encourage this issue to become part of political agendas.
- Petition campaigns ongoing.
- Timber awareness and boycott campaigns – timber-buying policy.
- Expose issue of zoonotic diseases.
- “Bushmeat” exhibits in zoos as well as private exhibits.
- Adopt or partner with African zoos on education campaigns, rehab projects, sanctuaries, capacity building etc.

3. Academics can:

- Provide expertise to evaluate and audit projects.
- Research effectiveness of projects educating children and women.
- Field data and research needed on alternative supply issues, supply and demand issues etc.
- Basic information needed on the issues at hand in order to enable decision making issues.
- Medical (zoonotics) and veterinary research.
- Keeping data up to date and relevant.
- Greater presence on the ground of scientists doing any relevant research.
- Multidisciplinary approach to projects.
- Take into account the socio-economic aspects to the issue.
- Monitor government performance and response

4. Agencies (NGOs and Government) can:

Non-government Organisations

- Evaluate projects effectiveness and performance (CBSG?).
- Need to recognize the complexities of issues and avoid oversimplification.
- Promote privatisation of wildlife management agencies in African countries.
- Raise funds to manage wildlife resources privately.
- CITES presence at African borders (promote law enforcement).
- Support law enforcement projects.
- Capacity building within wildlife authorities and officials.
- Support protection of protected areas.
- Investigate alternative employment / food production projects.
- Educate children and women.
- Partner with human health NGOs on the zoonotic disease issue.
- Projects dealing with community leaders and mentors who can act as role models for their communities.
- Promote an ethical and sustainable timber-buying policy.

Government Agencies

- Capacity building.
- Control of timber companies.
- Encourage timber certification process.
- Seek and develop political will.
- CITES influence increased (promote law enforcement)
- Take responsibility for the zoonotic disease risk
- Work with other countries which serve as a port or destination for bushmeat
- Increase the role of customs and police departments in confiscating bushmeat at international borders

Key Recommendations

1. WAZA needs to take their bushmeat campaign to an international audience
2. Petition the United Nations
3. Utilise the EAZA resources already developed (e.g. reading materials, CDs, TV adverts etc.)



Why WAZA should initiate an EAZA-like Bushmeat petition campaign:


- The zoos of the world have potentially the largest captive audience with a conservation interest.
- It is a very effective way for zoos to exploit their conservation potential without getting into another fundraising appeal.
- The EAZA campaign package is available and could be expanded to include and emphasise regional bushmeat issues.

At present there is:

- A CD ROM with picture materials and display panels and information
- A 30 Second commercial combined with lyrics
- A petition form
- Back up information
- A WAZA petition could be geared to a presentation at the United Nations and EAZA zoos could contribute to signature collection

- Zoo visitors who sign the petition would feel that they could make a difference without writing another cheque
- WAZA would require regional and national coordinators to distribute campaign material and to collect petitions

In Summary

It is accepted that pilot projects will only have very limited success unless some real political will can be generated. Raising the issue nationally or regionally in this context, will have considerably less impact than if the range country governments are confronted with the fact that the international community cares and is looking over their shoulders. In this context WAZA would be ideally placed to make a difference. 

Bushmeat Working Group Strategic Statement

CBSG recognises the unsustainable harvesting of wildlife (bushmeat) for human consumption as:

- a crisis of global dimension
- having a devastating impact on populations of species
- posing a complex multi-dimensional challenge to the conservation of biodiversity of the Earth's tropical regions
- requiring the commitment of national governments, government agencies, international agencies, NGOs, zoos and wildlife facilities to develop a process of change (social and economic)
- threatening human health
- of the highest priority

CBSG further recognises that the crisis requires:

- International programmes of awareness and education
- Sustained efforts by the conservation community to bring aspects of the crisis to the attention of national governments and international bodies
- The attention of the IUCN / SSC network as a matter of highest priority
- The application of multi-disciplinary expertise to the understanding of the causes of the crisis including forestry, cultural and economic issues.

CBSG specifically recommends and endorses:

- Effective workshops to discuss national and regional bushmeat issues
- The assembly of multidisciplinary expertise to contribute to the development of all relevant issues and to seek solutions
- A sustained global campaign by WAZA to raise public awareness of the complexity of the issues and to bring the issues before national governments and peak international bodies (the UN) – global petition
- Efforts to establish criteria for sustainable management of wildlife within logging concessions as an addendum to the FSC (Forestry Stewardship Council) Code of Conduct.
- Regular peer evaluation of conservation projects to ensure that resources applied to the crisis are being utilised effectively (establishment of an international third party NGO for this purpose)
- Efforts to establish unity of view amongst the diverse range of organisations concerned with the crisis including animal and aforesaid rainforest conservation bodies (in particular unity of view regarding logging and forestry issues).

Invertebrate Working Group Report

Developing the regional working group support network

The CBSG Invertebrate Working Group is an affiliation of existing regional invertebrate conservation oriented groups further strengthened by a variety of supportive CBSG colleagues. CBSG provides an international forum where our regional groups can address conservation-breeding and related technical issues. By improving interregional links each group is better placed to address common issues through a mutual sharing of information and materials. We are also better placed to assist the development of similar groups in regions that are currently poorly covered.

There are currently well established Invertebrate Taxon Advisory Groups for the ARAZPA, EAZA and AZA regions. The South Asian region is well covered by the wide-ranging work of CBSG South Asia. The SEAZA and JAZGA regions are also well placed to develop effective internal networks. The key links for these two regions are Biswajit Guha of Singapore Zoo and Dr Hiroshige Takaie of Tama Zoo. The diverse work conducted by these regional groups (CAMP workshops, field surveys, educational initiatives and fundraising efforts, etc) highlights the important fact that our collective remit extends beyond the conservation-breeding role.

In the case of regions not currently covered by a CBSG linked group, it was agreed that there is great merit in examining how we can best interact with related invertebrate Specialist Groups such as the newly formed Southern African Invertebrates Specialist Group.

The group agreed to make a concerted effort over the coming year to enhance networking capacity and assist the development of invertebrate groups in regions not currently covered. In this last regard we will focus particular attention on the Latin American region. To this end, Yolanda Matamoros (CBSG Mesoamerica) will attempt to identify as many invertebrate workers within the region as is possible. It was felt that this formidable task could be greatly assisted by combining efforts with Sao Paulo Zoo's Dr Flavio de Barros Molina. The INBO network will also be investigated.



photo courtesy of Paul Pearce Kelly

Developing a Web-enabled invertebrate conservation support database

The group identified that the greatest hindrances to progress are the lack of effective information and networking tools. There is pressing need therefore to provide the highly disparate invertebrate conservation community (including zoos, museums, universities and field workers, etc) with a free access, Web-enabled database with which to:

- Identify fellow specialists nationally, regionally and internationally.
- Identify invertebrate collections/facilities and their current status (in the above manner).
- Access taxon care guidelines, educational materials and other references.
- Access (at regional and international level) an electronic newsletter and discussion forum.

Detailed specifications for such a system have already been produced as an earlier group action. These were reviewed and we agreed to strip the specifications down to their essential elements necessary for meeting the above key requirements. Reworking the specifications and realising the construction of this tool is now regarded as the most pressing action priority.





CBSG Donor News

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CBSG Schedule

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*The Newsletter
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(CBSG, SSC, IUCN)*



Zoological Society of London

The Zoological Society of London (ZSL) is currently celebrating its 175th anniversary. The Society is made up of five operating divisions: London Zoo; Whipsnade Wild Animal Park; Institute of Zoology & Scientific Publications Department; Library & Fellowship Services; and Conservation Programmes. Its principle founders in 1826 were Sir Stanford Raffles, founder of the Singapore Botanic Garden, and Sir Humphry Davy, inventor of the miners' safety lamp. In 1828, London Zoo was opened with a Royal charter by King George IV and became the world's first scientific zoo. Three years later, Charles

Darwin became a Fellow of ZSL and Thomas Huxley, former President of ZSL, championed his theory of evolution. These early milestones set the stage for the Society's many contributions to the conservation of species throughout the world and for its long history with the Conservation Breeding Specialist Group (CBSG).

The Society has been an active CBSG member/partner from the inception of this dynamic SSC group in 1979. In 1980, Dr. Colin Rawlins, former Director of ZSL, and Dr. Peter Olney, former Curator at the London Zoo, were founding members of the CBSG Steering Committee. Both men

were instrumental in shaping CBSG's conservation philosophy. Dr. Olney also worked closely with Dr. Ulie Seal, Chairman of CBSG, developing and coordinating the world's first international studbooks. Dr. Georgina Mace, recently appointed Director of the Institute of Zoology, drafted the first IUCN Captive Breeding Policy Statement in 1994 and also led the process to develop criteria for the category of threat IUCN Red List used in the CBSG CAMP workshop process. Dr. Mace currently chairs the IUCN Red List Committee of which Dr. Onnie Byers, CBSG Program Officer, is a member, and is a current member of the IUCN/SSC Executive Committee, along with Dr. Seal. Sarah Christie, Conservation Program Coordinator at the ZSL, has also been actively involved with CBSG. In 1997, she was the European Tiger Coordinator and participated in a three-week

tour of captive breeding facilities in Indonesia to conduct a biomedical survey of Sumatran tigers in captivity. Paul Pearce-Kelly, current Curator of Invertebrates, coordinates the CBSG Invertebrate Working Group and actively recruits new members to participate in the working group sessions at CBSG Annual Meetings. He participated in the CBSG *Partula* workshop in 1994 and recently attended the 2001 SSC Invertebrate Scoping workshop, facilitated by CBSG's Dr. Byers. Former London Zoo Director, Jo Gipps, has served on the CBSG Steering Committee since 1995, during which time he participated in CBSG's Futures Workshops in 1996 and 2000 and regularly attended CBSG Annual Meetings. Dr. Chris West, the new Director of Zoos (London and Whipsnade Wild Animal Park), has recently accepted a position on CBSG's Steering Committee

and is committed to future collaborations between the two institutions.

The Zoological Society of London and the London Zoo have also supported various CBSG workshops and initiatives through the years. In the 1980's, the ZSL played an integral role in CBSG's early Giant panda work in China. It has also collaborated with CBSG on developing conservation plans for species including the Przewalski's horse and Northern White rhino. In 1993, the ZSL supported the St. Helena Island CAMP and PHVA workshop. In 1994, ZSL collaborated with CBSG on the Javan Gibbon and Javan Langur PHVA workshop, as well as the Thailand Gibbon PHVA workshop.

The ZSL carries out research of the highest priority for species conservation in the fields of animal behavior, population and evolutionary ecology, conservation genetics, reproductive biology and veterinary science. The institute applies sound scientific principles to the conservation of animal species in the wild, in captive breeding programs and in re-introductions to natural or restored habitats.

Some notable species focused conservation events include the loaning in 1962 of 'Caroline' the Arabian oryx to the world herd in Phoenix, Arizona - the first international co-operative breeding program; the first breeding in 1967 of cheetahs in Europe; coordinating in 1986 the release of Pere David's deer in Da Feng, China (including animals bred at Whipsnade); releasing in 1995 100 sand gazelles into the Empty Quarter, Saudi Arabia - the world's largest release of captive-bred mammals; and establishing (over the last 10 years) new field populations of threatened invertebrates in the UK using captive-bred groups from London and Whipsnade.

CBSG and Zoological Society of London Collaborations

CBSG Steering Committee Involvement 1980 - Present

Giant Panda Conservation 1980s

International Species Studbooks 1980s

Northern White Rhino Conservation 1980s

Przewalski's Horse Global Conservation Plan 1990

Tiger GASP 1993

St. Helena Island CAMP and PHVA 1993

Thai Gibbon PHVA 1994

Javan Gibbon and Javan Langur PHVA 1994

IUCN Captive Breeding Policy Statement 1994 (Currently known as the *Ex-situ* Breeding Policy Statement, last revised in 2000)

Partula Workshop 1994

CBSG Futures Search 1996 & 2000

Captive Sumatran Tiger Biomedical Survey 1997

CBSG Invertebrate Working Group 1990s - Present

IUCN Red List Committee 1992 - Present

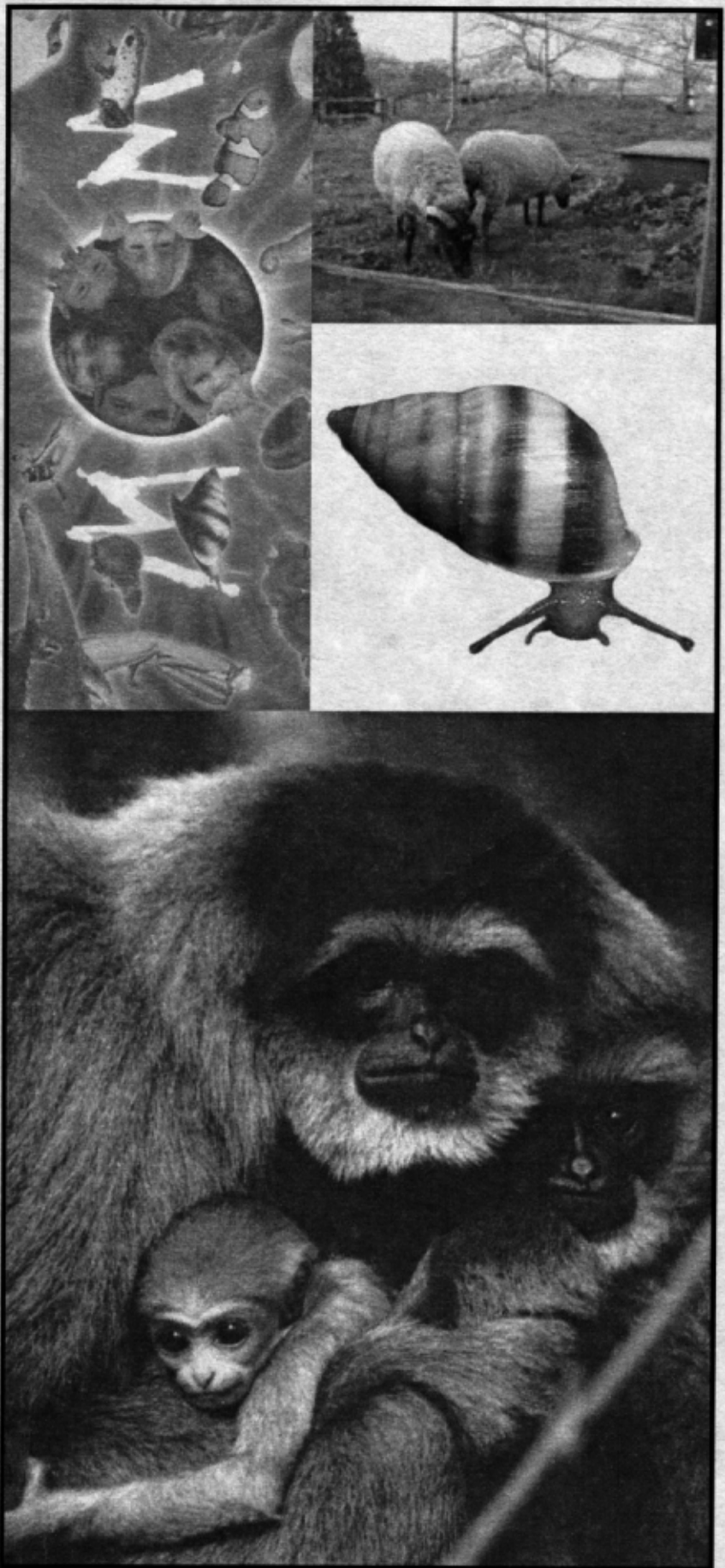
IUCN Invertebrate Scoping Workshop 2001

Zoological Society staff coordinate a number of species breeding programmes including those for tigers, and the international *Partula* tree snail program. The *Project Seahorse* program is one of the most recent collaborative initiatives in which the ZSL is engaged. A variety of species stud-books are also maintained at the ZSL.

Such program work involves a close collaboration between the animal collections, field management division (*Conservation Programs*) and the Institute of Zoology, especially in the areas of reproductive physiology, conservation genetics and animal health. A topical example of the conservation-led animal health work of the Society is Andrew Cunningham's (Head of Wildlife Epidemiology, Institute of Zoology) research into the devastating disease currently threatening vulture species in South Asia.

The Society most tangibly meets its founding remit of furthering and disseminating knowledge through a range of publications, scientific meetings and symposia. Notable publications include the *Zoological Record* (in association with BIOSIS), the journals *Journal of Zoology* and *Animal Conservation*, the Conservation Biology book series published with Cambridge University Press, and *The International Zoo Yearbook*.

In its 175-year existence, the Zoological Society of London has made major contributions to the field of species conservation. Its contributions to CBSG's philosophy, workshop processes and activities have been invaluable. The close working relationship between ZSL and CBSG is seen as one of the most valuable mechanisms for realizing our shared conservation objectives. ■



Seoul Grand Park Zoo
Conservation Masterplan II
23 - 26 April 2001
Seoul, Korea

Asiatic Black Bear PHVA
23 - 26 April 2001
Seoul, Korea

MN Dept. of Natural Resources, US
David Garshelis
Nambu Forest, Korea
Byung-Ho, Ryu Chang-Man Won
National Parks Authority, Korea
Bae-Keun Lee Hong Byun
So-Young Park Won-Ju Ki
Seoul Grand Park, Korea
Chang Han Eun Kim
Hong Son Kang-Soo Lee
Ki-Gun Kim Kwan Jung
Kyung-Sun Jin Sin-Il Cho
Soo-Ghil Chang Sun-Ho Kwon
Yong-Jun Eo Young-Kim
Seoul Government, Korea
Byoung Lee Yang-Soo Lee
Seoul National University, Korea
Byung-Tak Dong-Joon
Hang Lee Jung-Hwa An
Jung-Rae No Jun-Yong Lee
Mi-Sook Min Sang-Don Lee
Tae-Young Choi Won-Hong
Woo-Shin Lee Yeon-Ju Kang
Yeon-Hee Kim Young-Kim
Soraksan National Park, Korea
Jung-Tae Shin
The Ass. of Sap Collectors, Korea
Hyun-Kyo Cho Yun-Jung
The Federation of Chirisan, Korea
Byung-Chae Lee
The Ass. of Bird Protection, Korea
Seong-Man Kim
The Ministry of Environment, Korea
Sang-Ho Kim Chang-Hoe Kim
Toronto Zoo, Canada
Paul Harpley William Rapley
University of Minnesota, US
Hwang Mei-hsiu
Wildlife Conservation Group, Korea
Je-Min Son Min-Kwon
Wildlife Institute of Korea, Korea
Seong-Yong Han

CBSG
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Korean Federation, Korea
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Jung-Kyu Kim Yong-Woon Mah
MooJin Architect, Korea
Myeong-Hak Jang
SeoAn Total Landscape, Korea
Jong-Sang Sung
YeongNam University, Korea
Yong-Sik Kim
Seoul National University, Korea
Byung-Taik Kang Dong-Joon Cho
Hang-Lee Jung-Wha An
Mi-Jin Goh Mi-Sook Min
Sung-Kyun Kim Won-Woo Hong
Yeong-Joon Kim Yeong-Sun Suh
Yeon-Hee Kim
Seoul Grand Park, Korea
Chan-Hoon Chang-Suk Jun
Choi-Yong Choong-Kyu
Geun-Suk Hwang Gil-Yong Jin
Heung-Yeong Kim Hwang-Eun Kim
Ha-Neul Shin In-Sik Kim
In-Sook Kim In-Yeong
Jae-Yeol Joon-Eo
Mi-Sun Noh Moon-Hwan Kim
Moo-Pil Jung Neung-Hee Kim
No-Hak Shim-Joon Kim
Soon-Ho Kwon So-Yeong Jung
Sun-Ho Park Yeom-Jae Shin
Yeon-Geun Kim Yeong-Hee
Yoon-Joo Lee

CBSG
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Ho-Sung Mun
Bear Farmer Association, Korea
Jeon-Ho Cho Kwang-Ho Yeom
Sin-Il Pak
Bukhansan National Park, Korea
Bo-Yeon Hwang
Chirisan National Park, Korea
Ji-Hyung Lee
Dukyusan National Park, Korea
Ho Lee
Environmental Newspaper, Korea
Mi-Hwa Lee Myung-Jin Kim
Genetica Inc., Korea
Chan-Ho Lim Young-Kyu Kim
Ghayasan National Park, Korea
Doo-Ha Yang
Green Korea United, Korea
Joo-Young Jang
Hankyung University, Korea
Yun-Hee Park
Inha University, Korea
Seo-Young Yang
Jinju Munwha Broadcasting, Korea
Chang-Soo Seo
Korea Hunting Association, Korea
Chul-Hun Kim
Korean Federation, Korea
Yong-Un Ma
Korea Forest Service, Korea
Do-Hwan Park
Kwangjin Animal Hospital
Byoung Lee Soung Kim
Kyunghee University, Korea
Jae-Hyup Lee Jung-Jae Lee
Michigan State University, US
Adi Susilo
Murdoch University, Australia
Kristen Warren Ralph Swan
National Zoo, US
Rob Shumaker
Orangutan Care Center, Indonesia
Rosa M Garriga
Orangutan Foundation Int., US
Birute Galdikas Ichlas Al Zaqie
Perth Zoo, Australia
Leif Cocks
Sumatran Orangutan, Indonesia
Ian Singleton
UNE Zoology, Australia
Helga Peters
University of Malaysia, Malaysia
Andrew Alek Tuen
US Fish & Wildlife Service, US
Fred Bagely
USAID/REM, Indonesia
Anne Patterson Carey Yeager
WANARISET, Indonesia
Benvika Citrakasih M Nente
Jeane Mandala Kade Sidiyasa
Woodland Park Zoo, US
Andrew Antilla
Other Participants
Abu Hanifah Lubis Adi Susilo

Orangutan Reintroduction &
Protection Workshop
15 - 18 June 2001
Balikpapan, Indonesia

Australian National University, Australia
Colin Groves
BOSF, Germany
Peter Collin
California State University, US
Stacey Sowards
CBSG
Onnie Byers Norm Rosen
Conservation International, Indonesia
Jatna Supriatna
CUNY, US
Karyl Swartz
Dalhousie University, Germany
Tamaini Snaith
Duke University, US
Carel van Schaik
Glenpon College, Canada
Anne Russon
Gunung Palung National Park, Indonesia
Kurung
Harvard University, US
Cheryl Knott
IUCN, UAE
Pritpal S. Soorae
Kyoto University, US
Hiroyuki Takashi Michael Huffman

Akira Suzuki
Andang Widiyanto
Andy Blair
Ashley Leiman
Azri Bin Sawang
Bob Ashton
Darmanwan Liswanto
David Muhammad
Dwi Anugrah S Hud
Esther Ruurda
G. Emmanuelle
Helen Bernhard
Ir Suherry
Ivona Foitova
Jan van Hooff
Klaus Schendel
Lardeux Isabelle
Marli B Suali
Miriam van Gool
Peter Hos
Rahmat Sutarto SP
Rijksen Herman
Simon Gasong
Slamet Gadas
S. Djojosedarmo
Tatang Mitra Setia
Tonny Soehartono
Trio Santoso
Ambar Dwiyono
Andrea Birkby
Asep Mulyadi
Auer Jurgen
Barbara Shaw
Chancee
Datu Abulani
Dondin Sajuthi
Erik Meijaard
Graham Ushgr
HeatherLeasor
Heriyanto
I. Andrenaz
J. Sugardjito
Judi O'Dwyer
KunkunGurmaya
Lone Nielsen
M.Mienema
Mulyono
R. Commitante
R. Djoasomoro
Senta Ziegeler
Simone Nrdt
Sonja Klima
Tamen Sitorus
Tim Laman
T. Okayama
Wayne Johnson

Disease Risk
Workshop III

28 - 30 June 2001

White Oak Conservation Center, US

Africam Safari, Mexico
 Alberto Garcia
 Auckland Zoological Park, US
 Richard Jakob-Hoff
 Baltimore Zoo, US
 Mike Cranfield
 Bronx Zoo, US
 Sharon Deem
 Brookfield Zoo, US
 Bob Lacy Tom Meehan
 Busch Gardens, US
 Genny Dumonceaux
 California Dept. of Fish & Game, US
 Dave Jessup
 CBSG
 Phil Miller Ulysses Seal
 College of Veterinary Medicine, US
 Sue Brown
 Durrel Wildlife Trust, UK
 Tony Allchurch
 FUNDAZOO, Costa Rica
 Danillo Leandro
 Henry Doorly Zoo, US
 Doug Armstrong
 Houston Zoological Garden, US
 Joe Flanagan

Humane Society of the US, US
 Patty Klein
 Lincoln Park Zoo, US
 Dominic Travis
 Loyola University, US
 Allan Pessier
 Smithsonian Research Center, US
 Mitch Bush
 The Wilds, US
 Mark Atkinson
 Toronto Zoo, Canada
 Kay Mehren
 Tufts University, US
 Colin Gillin Jim Else
 University of California, US
 Linda Munson Michael Ziccardi
 University of Maryland, US
 Patti Bright
 University of Nebraska, US
 Laura Hungerford
 University of Wisconsin, US
 Warren Porter
 USDA, APHIS, VS, CEAH, US
 Barbara Corso
 White Oak Conservation Center, US
 Scott Citino
 Wildlife Trust Conservation Medicine, US
 Alonso, Aguilre
 Wildlife Veterinary Resources, US
 Mark Johnson
 Wyoming Game & Fish Center, US
 Terry Kreeger

Sherburne National Wildlife Refuge
Planning Workshop I & II

16-18 July and 9-12 October 2001

St. Cloud, Minnesota

Agassiz National Wildlife Refuge, US
 Margaret Anderson
 CBSG
 Onnie Byers Ulysses Seal
 Ecological Services, US
 Dave Warburton Nick Rowse
 MN Dept of Natural Resources, US
 Dave Pauly Dave Schad
 Fred Bengston Hannah Dunevitz
 Lloyd Knudson Pam Perry
 Patricia Fowler
 Sherburne National County Refuge, US
 Arne Engstrom Betsy Wergin
 Brad Ehlers Brian Bensen
 Charles Blair Gary Swanson
 Jeanne Holler Nancy Haugen
 Nancy Riddle Paul Soler
 Rachel Leonard Ray Friedl
 Terry Nagorski
 Tribal Governments of Ojibwe
 Curt Kalk David Merrill
 Galashkibos Melanie Benjamin
 Peter Defoe Roger McGeshick,
 US Fish and Wildlife Service, US
 Barbara Pardo Bob Adamcik
 Don Hultman Gary Muehlenhardt
 Jan Eldridge Jane Hodgins
 Jim Mattsson John Schomaker
 Liz Bellantoni Mary Mitchell
 Nita Fuller Steve Farrell
 Tom Larson Tom Magnuson
 Tom Will Tom Worthington
 US Geological Survey, US
 Carl Korschgen Dave Hamilton
 David Fulton Dorothy Anderson
 Jason Rohwede Jerry Rodriguez
 Kevin Kenow Murry Laubhan
 Rick Schroeder Sam Droeger

Mexican Wolf
Reintroduction Program

7 - 10 August 2001

Show Low, Arizona

Apache County Organization, US
 Marty Moore
 Arizona State University, US
 Phil Hedrick
 Arizona-Sonora Desert Museum, US
 Peter Siminski
 AZ Cattle Growers Association, US
 Wink Grigler
 AZ Game & Fish Dept., US
 Dan Groebner Dennis Manning
 Richard Remington Terry Johnson
 AZ Wildlife Conservation, US
 Joe Melton
 Canadian Wildlife Services, Canada
 Lu Carbyn

Catron County Citizen's Committee, US
 Auggie Shellhorn Tom Klumker
 CBSG
 Mike Phillips Onnie Byers
 Paul Paquet Phil Miller
 Roberto Wolf Ulysses Seal
 Center for Biological Diversity, US
 Michael Robinson
 Mexican Government, Mexico
 Jose A. Guevara
 Mexican Wolf Recovery, US
 David Parsons
 Minnesota Zoo, US
 Kathy Holzer
 NM Cattle Growers Association, US
 Laura Schneberger
 NM Game & Fish Dept., US
 Nick Smith
 NMSU, US
 Bruce Thompson Nick Ashcroft

Phoenix Zoo, US
 Mike Siedman
 San Carlos Apache Tribe
 Homer Stevens Russ Richards
 Southwest Environmental Center, US
 Kevin Bixby
 USDA Wildlife Services, US
 Alan Armistead
 USFWS & Mexican Wolf Recovery, US
 Brian Kelly Sharon Morgan
 USEWS, US
 Bryan Arroyo C. Buchanan
 Curtis Graves Dan Stark
 Michelle Brown Wally Murphy
 White Mountain Apache Tribe
 Krista Beazley Cynthia Westfall
 Other Participants, US
 Adam Polley Barbara Marks
 Bruce Malcolm Craig Miller
 David Ogilve Gary Ziehe
 Jack Diamond Jason Dobrinski
 Jim Holder Jim Tenny

Madagascar CAMP &
Giant Jumping Rat PHVA
20 - 25 May 2001
Mantsoa, Madagascar

American Museum of Nat. History, US
Christopher Raxworthy
Association Nationale pour la Gestion
des Aires Protegees, Madagascar

A. Rajarison
B. Rasolonandrasana
E. Raholimavo
Harisoa Faramalala
H. Ramanankirija
J. Rakotoarimanana
Pierre Rahagalala
Saindou

Brigade de Peche et des Ressources
Halieutiques, Madagascar

Victor Randriantsizafy
Brookfield Zoo, US
John Cadle

Brooklyn Aquarium, US
Paul Loisele

CBSG

Ulysses Seal
Onnie Byers
John Williams
Astrid Vargas, Association Fanamby
Ed Louis, Henry Doory Zoo
Frances Westley, McGill University

Centre de Formation Professionnelle
Forestiere, Madagascar

Vololoniaina Raharinomenjanahary
Circonscription de la Peche et des
Halieutiques de Tamatave, Madagascar
Juvenec Razafindrakoto
Nodier Raveloson

Circonscription des Eaux et Forests,
Madagascar

Jean Rakotonandrasana
Columbia University, US
Luke Dollar

Comite Regional de Development,
Madagascar

Lanto Andriambololona
Conservation International
Radilofe Sahondra
R. Mittermeier

Duke University, US

Ken Glander
Durrell Wildlife Conservation Trust, US
F. Rakotombololona

Joanna Durbin
Quentin Bloxam
Razandrimamilaifiniarivo
Richard Lewis

IGR/Page, Madagascar
Frank Hawkins

Madagascar Fauna Group, Madagascar

Adam Britt
Andrea Katz
Bernard Iambana
Eva Sargent

Maire de Beroboka Nord, Madagascar
Jeanot Jules

Malagasy Institute, Madagascar
Benjamin Andriamihaja

Ministere et Forests, Madagascar
Sahondra Rabesihanaka

National de l'Environnement,
Madagascar

Claudine Ramiarison
E. Rakotomavo
Georges Rafomanana
J. Rafaliarison
Voahirana Rasolofo

New York University, US

Jonah Ratsimbazafy
Mireya Mayor

Parc Botanique et Zoologique de
Tsimbazaza, Madagascar

F. Rakotondraparany
G. Rakotoarisoa
Jasmin Randrianirina

Parc Zoologique et Botanique de
Mulhouse, France
Jean Lernould

Reserve de Berenty, Madagascar
Jean DeHeaulme

Service Inter-regional de la Peche et
des Ressources Halieutiques,
Madagascar

Mamy Ramanantsoa
St. Louis Zoo, US

Ingrid Porton

Universite d'Anatananavarivo,
Madagascar

A. Raselimanana
D. Rakotondravony
D. Rakotomalala
E. Razafimahatratra
F. Rabemananjara
F. Raharison
Felix Kofoky

H. Rakotondratsima
Jasmin Randrianirina
J. Ramanamanjato
L. Rahajanirina

M. Raheriarisena
Nirhy Rabibisoa
N. Raminosoar
Olivier Ramilison

R. Vololomboahangy
R. Rasoloarison
R. Ravolanaivo
R. Rakotondravony

Rosalie Razafindrasoa
S. Voahangy
Vaniah Andrianjaka

Universite de l'ouest de l'Australie,
Australia

Gerald Kuchling

Universite de Turin, Italy

Franco Andreone

University of Aberdeen, UK

Clare Hawkins

University of Sussex, UK

Alison Jolly

Wildlife Conservation Society

H. Randriamahazo

John Behler

Marius Rakotondratsima

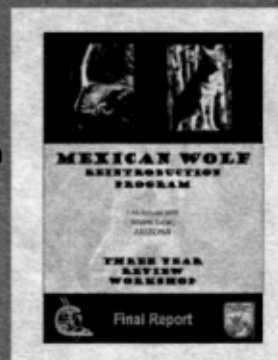
World Wide Fund for Nature

Martin Nicoll

Steve Goodman

New Publications

Mexican Wolf
Reintroduction
Program
\$35.00



Arabian
Leopard &
Ungulates
CAMP
\$35.00



Pan African
Sanctuary
Alliance
Workshop
\$35.00



Protected Areas
Management
Workshop for
Bahama
Iguanas &
Seabirds
\$35.00



CBSG Scheduled Workshops & Meetings

This schedule changes frequently; contact the CBSG Office for an update before final scheduling.
CBSG Staff: Ulie Seal (S), Onnie Byers (B), Phil Miller (M), Jenny Shillcox (JS), Shelly O'Brien (SO), Moriya McGovern (MM)

January

- 21 - 25 Madurai, India: So. Asian Bat CAMP (Walker, Molur)
- 23- 25 Jersey, Channel Islands: Conservation Planning Meeting I (S)

February

- 4 - 8 Capetown, So Africa: Seabird CAMP (B)
- 5-7 Amsterdam: B.DeBoer Meeting (S)
- 9 - 14 Sharjah, UAE: CAMP (S, D. Armstrong)
- 14-16 San Jose, Costa Rica: GADG Meeting (M)
- 18 - 20 San Jose, Costa Rica: Zoo Conservation Planning Meeting I (S)



March

- 4 - 8 Coimbatore, India: South Asian Primate CAMP (Walker, Molur)
- 5 - 7 Jersey, Channel Islands: Conservation Planning Meeting II (S)
- 12 - 15 MN: Sherburne NWR Workshop III (S, B, MM)
- 18 - 21 Cuba: Cuban Iguana PHVA (M, Y. Matamoros)
- 19 - 20 Capetown, South Africa: Red List Training (B)
- 22 - 27 Capetown, South Africa: Mammals CAMP (B, J. Williams)

April

- 5-7 Hague, Netherlands: SSC SC Meeting (S)
- 9-12 MN: Sherburne NWR Workshop IV (S, B, MM)
- 17 - 18 Santiago, Chile: SSC Exec. Com. Meeting (S)
- 22 - 26 MN: CCP Regional Training Workshop (S,B)

May

- 5 - 11 Jersey, Channel Islands: Facilitator's Training Workshop (S, M?, Westley)
- 11 United Kingdom, Marwell Zoo: Conservation Seminar Talk (S)
- 12 - 13 United Kingdom, Marwell Zoo: CBSG Steering Committee Meeting (S, B)
- 13 - 17 Stockholm, Sweden: Conservation Genetics Lecturing (M)
- 20 - 24 Tuxtla Gutierrez, Chiapas, Mexico: AMACZOOA Congress (S)
- 20 - 24 Washington DC: IUCN Red List Committee & SSC Staff Meeting (B)
- 30 M-2J Jacksonville, FL: AAZV Meeting (S)

June

- 3 - 6 Costa Rica: Disease Risk Assessment Workshop (S, D. Armstrong)
- 3 - 7 Kenya, Africa: PASA Meeting (M, N. Rosen)
- 10 - 13 San Jose, Costa Rica: Amphibian CAMP
- 18 - 22 Puebla, Mexico: Vortex Training Workshop (M)
- 19 - 22 Palangkaraya, Central Kalimantan, Indonesia: Orangutan Conservation Workshop (B, N. Rosen)
- 23 - 27 Singapore: Joint SEAZA & ARAZPA Conference (S, B)

The CBSG Conservation Council

These generous contributors make the work of CBSG possible

Benefactors (\$20,000 and above)

Columbus Zoological Gardens
Minnesota Zoological Gardens
Omaha's Henry Doorly Zoo
SeaWorld, Inc.
Toronto Zoo
White Oak Conservation Center
Zoological Society of San Diego

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Saint Louis Zoo
Walt Disney's Animal Kingdom
Wildlife Conservation Society - NYZS
World Zoo Organization (WZO)
Zoological Society of London

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Nan Schaffer
Toledo Zoological Society

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Audubon Zoological Gardens
Bristol Zoo
Caldwell Zoo
Calgary Zoo
Chester Zoo
Copenhagen Zoo
Denver Zoological Gardens
Detroit Zoological Park
Durrell Wildlife Conservation Trust
El Paso Zoo
Everland Zoo
Federation of Zoological Gardens of Great Britain and Ireland
Fort Wayne Zoological Society
Fort Worth Zoo
Fossil Rim Wildlife Center
Gladys Porter Zoo
Greater Los Angeles Zoo Association
Houston Zoological Garden
Japanese Association of Zoological Parks & Aquariums
Little Rock Zoo
Living Desert
Loro Parque
Marwell Zoological Park
Milwaukee County Zoo
National Tropical Botanical Garden
North Carolina Zoological Park
Oklahoma City Zoo
Oregon Zoo

Paignton Zool. & Botanical Gardens
Parco Natura Viva Garda Zool. Park
Perth Zoo
Philadelphia Zoological Garden
Phoenix Zoo
Pittsburgh Zoo
Rotterdam Zoo
Royal Zoological Society of Antwerp
Royal Zoological Society of Scotland
Royal Zoological Society of S. Australia
San Antonio Zoo
San Francisco Zoo
Schonbrunner Tiergarten
Sedgwick County Zoo
Sunset Zoo (10 year commitment)
Taipei Zoo
The WILDS
Thirby Hall Wildlife Gardens
Twycross Zoo
Union of German Zoo Directors
Urban Services Dept. of Hong Kong
Wassenaar Wildlife Breeding Centre
Wilhelma Zoological Garden
Woodland Park Zoo
Zoo Atlanta
Zoological Parks Board of New South Wales
Zoological Parks & Gardens Board Of Victoria
Zoologischer Garten Koln
Zoologischer Garten Zurich

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Dutch Federation of Zoological Gardens
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Lowry Park
National Aviary in Pittsburgh
National Zoological Gardens of Pretoria
Odense Zoo
Ouwehands Dierenpark
Prudence P. Perry
Riverbanks Zoological Park
Rolling Hills Refuge Conservation Center
Staten Island Zoo
Tierpark Rheine
Wellington Zoo
Welsh Mountain Zoo
World Parrot Trust
Zoologischer Garten Rostock

Curators (\$250-\$499)

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Emporia Zoo
Lee Richardson Zoo
Lincoln Park Zoo
Dr. Edward & Marie Plotka
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Roger Williams Park Zoo
Tokyo Zoological Park Society
Topeka Zoo, Friends of
Zoo de la Casa de Campo

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Apenheul Zoo
Arbeitskreis Natur- u. Artenschutz in den
Belize Zoo
Bighorn Institute
Brandywine Zoo
Darmstadt Zoo
Folsom Children's Zoo & Botanical Garden
Nigel Hewston
Jardin aux Oiseaux
Marvin Jones
Kew Royal Botanic Gardens
Lisbon Zoo
Memphis Zoo
Miller Park Zoo
National Birds of Prey Centre
Steven J. Olson
Palm Beach Zoo at Dreher Park
Parc Zoologique de Thoiry
Pearcedale Conservation Park
Potter Park Zoo
Safari Parc de Peaugres
Teruko Shimizu
Steinhart Aquarium
Tautphaus Park Zoo
Touro Parc-France
Jackson Zee

Supporters (\$25-\$49)

Beardsby Zoological Gardens
Erie Zoological Gardens
Franklin Park Zoo/Zoo New England
Oglebay's Good Children's Zoo
Celia Sanchez Sanchez
Warren D. Thomas

Thank You!

January 2002

Forthcoming SSC invertebrate scoping exercise

Onnie Byers (CBSG Program Officer) outlined the background and objectives of this SSC initiative and we discussed how this group might best contribute to this important and timely review process. Our initial thoughts and suggestion are summarised below:

- We need to include a review of the key problem factors facing invertebrates, how problems may vary in different regions and what the practical requirements are to enable SSC to adequately address these issues.
- We need to clarify the strengths and weaknesses of the current SSC invertebrate network (individually and as a collective whole) and develop a strategy whereby we can realise our common conservation objectives. An analysis of the defunct Invertebrate Conservation Task Force and the successful Declining Amphibians Task Force was suggested as being a useful exercise to help determine problem areas and potential as model for how to design an effective approach.
- As previously noted, the diverse work conducted by the regional groups making up the CBSG Invertebrate Working Group (CAMP and PHVA workshops, field surveys, educational initiatives and fundraising efforts, etc) highlights the important fact that our collective remit extends beyond the conservation-breeding role. This fact needs to be recognised when considering where we fit within the overall SSC invertebrate resource base.
- As many regions currently suffer from a serious paucity of basal field data it is important to recognise the value of active invertebrate conservation groups in these regions. These groups are often best placed to address these data gaps and the need to provide assistance to them wherever possible is clear.
- Enhanced communication and data sharing within and between the Specialist Groups is seen as being perhaps the most important requirement for maximising our collective ability to make progress. In the past it has often been very difficult to effectively communicate with different Specialist Groups. Good communication is essential to our regional groups' ability to play a key role in areas such as providing essential Red List status evaluation data. Good examples of these cross over roles are the numerous South Asian species workshops and the extensive partulid field status data provided by the EAZA regional group.
- We need to thoroughly examine how the SSC's new Species Information Service (SIS) Web-enabled database can be best utilised and how it might relate to (or even fill the role of) our proposed network database. 🐞



photo courtesy of Paul Pearce Kelly



Australian Mammal Working Group Report

Workshop Background and Aim

Australian Zoos are seeking a framework for overseas zoo coordinated/planned exports that provides a clear process for them to acquire Australian fauna. Both overseas and Australian Zoos are seeking a way in which priority Conservation and Research projects in Australia can be supported. Changes, in January 2001, to the Australian Wildlife Protection Act (Regulation of Exports & Imports) 1982 will affect the process and obligations when exporting Australian Fauna. Currently the Australian Region has a few existing guides for the acquisition of some Australian species that will need to be revised as a result of these changes. The aim of this working group is to develop a useful guide for both Australian and overseas Zoos that enables the acquisition of Australian Fauna.

Issues to be Addressed

The working group began by outlining the issues, from a regional perspective, that will need to be addressed in the guide. These are:

1. Background - Flowchart (possibly?).
2. Who to Contact?.
3. Clarity of Process.
4. Conservation Links.
5. Staff Training.
6. Exhibit Design.
7. Species Planning.
8. Captive Animal Program Links.
9. Information Sharing.
10. Quarantine Requirements (AQIS).

The working group then developed the elements of a draft guide to be called Guide for Australian Taxa Export or GATE. The following points are the process that a zoo wishing to acquire Australian fauna will need follow.

GATE

1. Overseas zoo identification of species requirements in plan eg. Masterplan, exhibit plan.
2. Overseas regional census and planning clearly outlines import needs over various time frames and with priorities; Australian TAG Convenor informed.

3. Australian/TAG /Species Coordinator incorporate export requirements into species management plans and recommendations.
4. Exporting zoo identified for each transaction – TAG to TAG feedback on availability, timeframes and institutions involved.
5. Exporting zoo contacts overseas zoo;
Exchange of information on :
 - Exhibit design.
 - Husbandry.
 - Transport.
 - Laws/Permits – both ends.
 - Ambassador Agreements, if applicable.
 - Staff Requirements.
 - Education.
 - Species Management.
 - Conservation & Research links.
 - Quarantine Requirements.
 - Species Specific Conditions, if applicable.
6. Preparation of a Draft Species acquisition plan by overseas zoo addressing items in # 5.
7. Draft Species acquisition plan submitted to exporting zoo.
- 7a. Finalised in joint consultation (including EA/AQIS).
8. Draft Species plan submitted to Environment Australia (EA) and Australian Quarantine Inspection Service (AQIS).
 - a) 'In principle' approval of plan (e.g for koala plantation) by EA (plan implementation).
 - b) Export application submitted to EA/AQIS.
9. EA/AQIS assess application –
 - Either a) approve – permit granted.
 - b) refuse – letter outlining reasons provided to exporting zoo (revise plan and resubmit).
10. Implement Species plan -export.
11. Ongoing liaison between overseas receiving zoo and exporting zoo – Ambassador Agreement obligations.
12. Information and improvements fed back into 'Guidelines'.

The working group then went on to expand the requirements outlined in point 6. ARAZPA aims to have an agreed final version of all the requirements and the process prior to the enactment of the legislative changes.

Content of Draft (Species) Acquisition Plan

Context of Display

- Education program.
- Breeding program.
- Theme e.g. Australian arid environments.

General Information on Receiving Zoo

- Annual reports (or information as in Melbourne Zoo Annual Report).
- Examples of publications.
- Species held.
- Programs run/participating in.
- Administration/staff structure (vets, etc).
- Map/plan of zoo.
- Climatic conditions.
- Animal management policy e.g. euthanasia.
- Master Plan (if applicable).
- Public display.
- Associations and affiliations/Registrations and licences.
- Animal records system
(Consider EAZA accreditation questionnaire as an example of type of information required).



Laws and Permits

Export: EA/Cites – all permits
AQIS Health
Certificate – all species
State Wildlife Agency – (Tasmanian endemics only?) may vary by state.
Vertebrate Animal Agency? Eg. NSW EAPA, Dept. Ag.

Import: CITES (if applicable)
Health Certificate
Agriculture Dept Agriculture
USFW justification for their listed endangered species.

Transport

IATA Guidelines – crates, transit times, temperatures.
Airline Restrictions.
Airport Restrictions.
Koalas – IATA & Australian Export Conditions.
Macropods – IATA & Australian Export Conditions.
Individual Country restrictions.
In Transit Regulations.

Exhibit Design

Plans – dimensions, internal features, security, shelter.
Photos, videos.
Construction materials.
Environmental enrichment features.
Veterinary features.
Interpretation.
Ancillary physical features eg. Plantations, coolrooms.
OH&S considerations.

Species Management

Species selection – choice reasons, mixed exhibits – compatibility.
Species management plans – breeding, dispersal of progeny.
Species specific housing requirements – koala conditions, macropod conditions.
Management policies – euthanasia, handling, commercial activities.

Husbandry

Keeper expertise – numbers, experience with species or similar.
Diet – access to appropriate food sources.
Veterinarian(s) – experience, qualifications, part/fulltime.
Enrichment.
Animal Health programs.
Handling and restraint.

Ambassador Agreements

Koala.
Tasmanian Devil.
Wombat.
Platypus.
Other species as required by EA or Australian Zoo/
TAG eg. echidna, Threatened species
Tri-Party Agreement on: species management, interpretation, display theme, reporting, conservation support, husbandry.

Education

Conservation status.
Threats – species impact on environment.
Sources of information.
Habitat.
Behaviour.
Conservation/research programs.
Biology/Ecology information.
Interpretation Plan – material, activities. 🐾

Global Animal Data Group (GADG) Report

Review of what GADG is

- The Global Animal Data Group (GADG) is an undefined group of people representing zoo associations, zoos and aquariums, and other interested agencies, which share a common view of further developing computerized zoo and aquarium record systems. It has had one meeting last June, in Brookfield Zoo, Chicago, and is planning an additional meeting in the near future.
- Comments were made that the timeframe for development of a new software system must be a long one. One of the reasons that the groups was formed was due to frustrations about the timing of new software systems, and are thinking of writing their own software systems.
- Identified a lack of representation from Asian countries at the initial meeting
- Concerns by some regional zoo and aquarium associations was that they would like to have more input into the development of future animal records systems.
- Noted that one of the recommendations from the initial meeting is that reports from various regional software development meetings would be distributed amongst the group.
- Noted that there is a wide variety of systems already in place, and the ideas, and data from these should be linked into a bigger system.

Issues raised: Discussion and Recommendations

- How quickly can we get there?
- Open system development.
- Where are other independent developments heading?
- How will they link in with international efforts?
- Issues/discussion about regional-global differences have taken place for years.
- Do we need one system?
- Under represented regions.
- Have more than one half of zoo visitors
- Needs more focus; maybe tap into international aid
- If ISIS is the global system –
 - Unmet challenges of bringing in developing regions.
 - They need help from the neutral non-region source.
- Involvement of resource centers can offer opportunities for funding from new sources.
- There is a need for training
- Should/could this be offered by regional associations?
- Who do we need to make recommendations to?
- We maybe need a statement (show of force) about the need for neutral collaboration.
- We all want a better system.
- How can we harness the resources of the few big ones (institutions and associations)?
- There are dependencies for finance, data, and expertise.
- Can "someone else" pay for it? Who is the "someone else"?
- There are concerns over time frame and how it meshes with other efforts.
- Need sufficient time and open mindedness to deal with issues and elements that have been raised.
- We need to move animal information systems to a new level.
- Need a mechanism to link the global community to ongoing efforts in other regions.
- Host of database needs to be objective, neutral and inclusive of all participating countries.
- No vested interest of "hosting"
- No institution or country should derive benefits not equally available to all.
- Host should not have a lobbying role
- Host not owned by any regional organization.
- Should be recognized that different databases may be "curated" by different organizations.
- Guarantee that the database is not 100% limited to use by zoos, but useful to other wildlife and conservation organizations.
- We need to use the data to get best practices guidelines.
- Meet institutional needs for collection management.
- When and how do we set the priorities for what we will include in the system.
- Need a standardized core data system.
- A better system could be part of a quantum leap, which needs to incorporate *in-situ* and *ex-situ* linkages.

- Need to know where you are going (shimmering shore) – but stage your progress towards it.
- The endpoint must be truly international.
- We need to review elements produced by various parties. Should inform any groups which are currently moving forward on development.
- Must be a two-way process – organizations need to be willing to alter their system.
- Data types and ways of recording standards must be truly global.
- At what point should the design and development process be opened to the international community?
- Global community wants to integrate with the developing efforts – the data are fundamental to zoos and to conservation.
- Before we ante up, who is going to own it?
- What are the approaches we take to developers in other regions?
- There should be opportunities to raise funds for a global system.
- We are the stakeholders. As we join in, we want assurances that:
 - it is globally owned, not owned by any one regional organizations
 - at each stage of system development and implementation, global input sought and approvals obtained.
 - Managed independently.
 - Global community is and can do more to contribute data, money and intellectual expertise.
- Identify stakeholders and define a mechanism for communication.
- Concern about delays and slowed schedule, so we need rapid consultation.
- Many animals come from outside the region, so involvement of all regions is important.
- What should ISIS be and do to meet your needs?
- We recognize what ISIS has contributed.
- We embrace the ISIS vision, and international philosophy etc.
- We want to build future systems on the global, collaborative network that is ISIS. Therefore we would like the system developed.



Statement

CBSG applauds the efforts and progress being made in North America, Japan, Australia and Europe to develop needed new animal information systems. Several earlier meetings such as the ISIS Futures Search (February 2000) and the Global Animal Data Group (June 2001) identified the need for a single integrated global system that is capable of providing excellent support for collection management and conservation requirements. Because most collections contain specimens from many regions, collection management depends on reliable pedigree and other data that are frequently held by other institutions around the world.

The governing body of the global information system should include representation of the zoo and aquarium associations as well as the institutions they represent.

New systems may well be needed to replace the existing software. However, any new systems must retain the international cooperation network of ISIS, which currently encompasses 581 zoos in 70 countries, in more than 12 regional zoo associations.

CITES and the Convention on Biodiversity require global data, which need to be from sources seen as neutral and objective. Organizations that have active lobbying functions are not seen as neutral. Therefore, to have credibility with regulators, the ownership and management of any global animal information system must reside within an appropriate international organization.

Our ability to meet collection management needs and widely held conservation objectives will be determined by how successful we are as an international community in adopting an inclusive strategy.



ISIS-STAC Working Group

Review of the past year. Revision and approval of the report of annual activities.

- ISIS-STAC was formed after the need for more advice to come to ISIS from outside of the software development team had been identified.
- Is a group of specialists made up of regional zoo association staff, taxonomic specialists, veterinarians and others.
- Setup as an e-mail discussion group – fast communication, and lack of resources for meeting regularly.
- Has reviewed subjects such as:
 - Level of taxonomic recording. The advice was to record to subspecies level, but store additional information elsewhere in the data.
 - Review of Lineage, a pedigree software package, for potential distribution by ISIS – those who were asked to review the software were unable to do a good review, due to time constraints. It is recommended that future software reviews like this not be undertaken by STAC for time reasons, but instead, the software could be evaluated by the people who have requested the software, ie, users.
 - ISIS web site. Feedback to ISIS has included: the need to display the currency of the institutional data. This has been resolved now by a system of red, yellow and green “traffic lights”; the site has a very thorough security system, and whilst this is critical, it has led to issues of staff being unable to access the site’s security system (delegation of institutional access to the site was provided to institutional directors, and in many cases, this has not been communicated within the institution). The group to advise the ISIS Board that the mechanism of providing access details to institutional directors seems not to have worked. It is recommended that the ISIS representative should be given the authority to assign institutional security. Also recommended that ISIS distribute a hard copy information update about the web site to studbook keepers, institutional directors and institutional representatives.

Membership: Do we need more? who? how?

Noted that there could be more information technology expertise on the committee – most existing members are users of the software.

Communications and mode of operating: Is it working?

- Noted that e-mails sent to discussion groups are generally slow initially, but soon build up momentum.
- Free, and this is an important concern.
- Felt that discussions on a topic should be made amongst members of STAC, and then a summary of the Agreed positions of STAC should be made available to a wider audience, eg e-mailed to all ISIS representatives. Need to make sure that if a recommendation is made that needs to go to the ISIS Board for approval, it might not be appropriate to circulate it to a wider audience before the issue has gone to the Board.

Scope of discussions and STAC activities.

- Should topics discussed by the group be responsive or strategic? Considered that both are appropriate. To date, most issues have been instigated by Nate Flessness or Bob Lacy, but there is no reason why STAC members can’t initiate any sort of topics.
- Should include science policy issues.
- Include discussions on unmet needs.

New issues to be addressed by STAC.

- Access to the data.
- Back to lineage, with more focus.
- Need to address the quantitative genetic relationship between groups.
- How do we manage the data for different life stages, eg spawn, in studbooks, and for management.
- Problems with identification of individuals, eg small individuals, a hive of bees identified as a single unit, which is then split into two hives.
- Formal process for resolving the limits of taxonomic names and disagreements with them.
- Forum for nutrition data issues.
- Are there other areas of data collection that ISIS should be involved in, eg nutrition, husbandry, behavioral enrichment, etc.

- Regional association meetings could include an open ISIS-STAC working group meeting to gather input from regional meetings.
- Studbooks – is the current system satisfactory?
 - Do they serve us adequately for program management?
 - Do we need to capture other kinds of data?
 - Should data entry be by a person or distributed users?
- Are there too many steps in collecting the data?
- Processing to resolve discrepancies between studbooks and ISIS data – useful and practical.

Chairmanship: End of interim chairmanship and election of someone for a defined term?

How/when to call for nominations and elect a new Chair for the next two years. The matter is to be discussed with the ISIS Board at it's next meeting. 🐼

Future CBSG Annual Meetings Working Group

Aim of Working Group

The aim of this working group is to provide insight on the format and themes / content of future CBSG Annual Meetings from the widest possible representation of stake-holders. This would include regional zoo associations, curatorial staff, academics, veterinarians, field scientists, as well as zoo directors.

Overall, there is recognition that CBSG must continue to be current and relevant, and reach a broader-based audience through participation.

The aim of CBSG meetings could be described to produce collaboration with immediate and effective results and to provide a distinctive different opportunity for collaborative effort than that provided by regional zoo associations. "Need to take one thing home that you can use straight away – information that is of immediate use, or one thing identified that you must never do".

The current structure of the CBSG Annual Meeting in terms of formal presentations and workshops was viewed to be useful.

Areas suggested for development at future meetings

1. Education/Learning Element

The need for a strong education line for all attendees was identified. Key issues identified included bringing delegates up-to-date with e.g. current regulations and guidelines, emerging disease situations, and current reintroduction philosophies (incorporating "lessons learned").

It was suggested that formal presentations could be commissioned to cover these subject areas through the development of a detailed brief. The major themes / issues could then be used for workshop discussions (the bush meat presentation at this 2001 meeting was a good example).

This structure could then bring people up to speed with progress and information on global conservation issues and address critical and specific issues/problems. If people know that such vital updates would happen, it was considered that they might feel that they had "missed something" by not attending.

2. Themes

It was suggested that there should be no more than 2 – 3 main presentations, addressing no more than 2 -3 main themes that have cross-disciplinary relevance. Such themes should include topics related to the host country (e.g. the European community needs to urgently identify themes in preparation for the Vienna meeting). The possible need for a selection / programme committee was then indicated.

Members should be advised of the selected themes at least 6 months before the meeting and at a timing that allows the costs of attending meetings to be fed into financial budgets. One of the working groups of future CBSG Annual Meetings could be tasked with this responsibility and identify relevant themes for the following meeting and key speakers both within the group and actively seeking opinions and advice from others at the meeting.

At the close of business on the last day it would be possible to know what is on the agenda for next year and then nominate chairmen and allocate responsibility for briefing the chairmen/key speakers.

These presentations could then lead into a working group, and the accompanying notes would serve as background information needed by the participants.

3. Meeting Format

Working groups format was discussed and it was agreed that they were very effective. It was suggested that they should form not less than 50% of total time and be combined with the formal sessions as described above.

The need for monitoring and assessment of the success of the workshops was identified. Surveys should be undertaken of other working groups and it was suggested that no more than half the working groups would change each year to encourage continuity.

It was suggested that there was a need for further encouragement and feed-back for tasks completed (constructive criticism), in addition to explanations as to why task may not (perhaps could not) be completed. This should be reported back to the Annual Meeting, not just Steering Committee, in order that those undertaking the work could attend).

It was recognised that continuity of working groups is needed to produce action (not just the production of reports).

4. Encouraging Attendance: Cross-disciplinary

It may be useful to consider having a title "theme" for each of the annual meetings, with key words, in order to attract broad disciplinary interest (e.g. words such as – emerging diseases; lessons-learned; techniques; reintroduction programmes)

It was recognised that it may be useful to link the CBSG with other organisations (rather than only WAZA) – perhaps animal health based meetings or other wildlife organisations. It may be useful to encourage further collaboration with other IUCN Specialist Groups, particularly

- Veterinary Specialist Group (under new chairmanship)

- Reintroduction Specialist Group
- Alien Species Specialist Group

Specific Audience Targets

1. Veterinary Professionals: Zoo Vets, Wildlife Vets, Veterinary Specialist Groups

Vets generally need to identify issues specific to their discipline to justify the time and cost of attending. In particular the Veterinary Specialist Group needs "encouragement" to attend future CBSG meetings and could be consulted on the choice of themes.

2. Zoo Directors

To encourage Zoo directors to attend, subject matter needs to be pertinent and relevant to their zoo or in-situ interests.

3. Field Scientists

4. Curatorial Staff / Zoo Biologists / TAGs

This group of individuals needs the opportunity to discuss conservation, breeding and management issues with colleagues from around the world. They are supportive of the working group activities and will identify areas where more work needs to be done regarding breeding in captivity and reintroduction.

The learning element is particularly important to attract younger generation of zoo professionals. There is also a need to help provide these people with convincing reasons for their attendance in order to gain approval from their zoo directors/institutions.

They are particularly interested in species management and expecting information on conservation, breeding and management. They are attracted by a mixed group of people with diverse knowledge, genetic and demographic information, health etc. Reintroduction issues are important to them (captive and in the field), particularly information on actual techniques / training.

5. Academic Staff

Potential delegates often need a 'scholarship' based reason to attend. Consideration could be given to allowing a poster session and/or short presentation/ optional evening session. These should be listed in the proceedings (briefing book) to enable the delegate to identify their contribution for continuing professional development purposes and to their employers.

Themes in their speciality areas for special sessions would encourage their attendance. Invitations to deliver plenary lectures will also help to increase attendance by academics.

6. *Rescue and Rehabilitation Organisations*

If these organisations are to be encouraged, themes/ subjects that will attract them need to be identified. (e.g. disease and reintroduction programmes)

7. *Regional Zoo Associations / Host countries*

Global Influence

With the current rate of development, it was felt that WAZA should have an increased profile, perhaps by providing them with a platform at CBSG meetings. This would hopefully provide feedback to the directors, giving them a better understanding of impacts of policy developments on curators, academic staff, veterinarians etc.

Encouraging Attendance

A critical need for earliest possible announcement of themes for upcoming meetings was identified. It was suggested that one theme per year of international interest (global) would be appropriate.

A keynote speaker (a "star") may attract delegates, particularly if associated with a theme (e.g. Jackie Chan, Jane Goodall).

Consider conducting a simple PHVA at the Annual Meeting – or a CAMP for 10 – 12 animals (limit the number of species) with local distribution. This could be linked to the overall theme.

The need to research regional concerns where international discussion would be beneficial was identified.

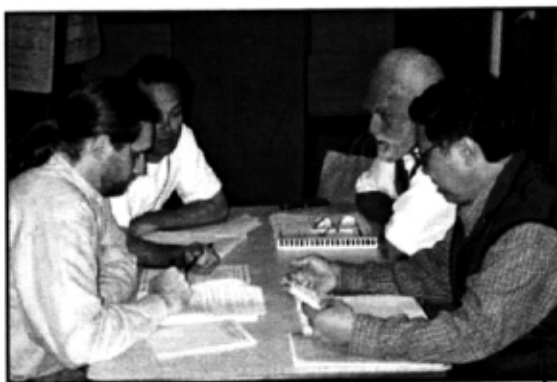
It was suggested that more local "decision-makers" could be invited and sponsored (for example wildlife and zoo directors, TAGs, CAPs and people with national wildlife projects). Commitment should then be obtained in advance so that other delegates who may wish to meet the "decision-makers" would be aware of their attendance. Identifying sponsored delegates could be matched to the theme of the conference.

Members of CBSG could also be asked to identify collaborators "in country" so encouragement could be given for the attendance of the collaborators.

Consider the idea of inviting 'observers' for specific sessions – without need for paying full registration fee – in order to get wide representation from host country specialists / students etc.

Example Themes for Future Conferences

- Emerging diseases and their implications for reintroduction and captive breeding programmes
- International Veterinary Regulations
- Introduction of disease agents into Antarctica and implications for wild populations
- Requirements for disease quarantine measures in the face of climatic change and globalisation
- Tuberculosis in mammals and the implications for reintroduction and captive breeding programmes
- Amphibian mass mortality events and potential conservation impacts
- Contingency planning for Foot-and-Mouth disease
- Current status and implications of West Nile virus



WAZA In Situ Conservation Workshops Working Group Report

Conservation Criteria for WAZA

It was unanimously agreed that WAZA should endorse in-situ conservation programmes, projects, and campaigns.

Discussions as to WAZA's coordinating role and its inability to financially support projects led to the following recommendations:

1. **WAZA to co-ordinate campaigns** (i.e. *Threatened tropical rainforest*) and encourage member zoos to support specific projects (i.e. *Survey for the status of primates in Vietnam*).
2. **Conservation Committee:** to prioritize and recommend conservation projects for support.
3. **Conservation projects database:** As it is recognized that many WAZA zoos are involved in *in-situ* conservation, set up a global conservation project database building from the EAZA database. The database should be expanded to include an expertise database for skills, regions, habitats along the lines of the IUCN authority list.
4. **Web:** put these databases on the web for easy access by members.
5. **Responsibility:** Conservation projects are the primary responsibility of zoos and regions, not WAZA.
6. **Facilitation:** between zoos and the conservation community.
7. **Funding facilitation** – for conservation projects that it has endorsed.
8. **Endorsement:** of conservation projects and campaigns by WAZA.
9. **Publicity and marketing:** raising profile to both conservation community and general public.
10. **Represent:** on international issues such as CITES, CBD.
11. **Develop a global brand:** see working group report.



WORLD ASSOCIATION
OF ZOOS AND AQUARIUMS

Recommendations from CBSG to WAZA for *in-situ* Conservation Work

WAZA recognizes the unique skills and opportunities of its members to assist the many *in-situ* conservation needs of planet earth and the expectations of zoo supporters for zoos to move from their original status of menageries to conservation centers.

CBSG recognizes that individual zoos bringing their individual skills, interests and financial abilities to problems commensurate with these will best achieve this. However, for the purposes outlined below, these projects should be recognized and approved by WAZA. There may be a time when WAZA itself will have direct involvement with large projects, but this is unlikely in the immediate future given WAZA's present personnel and financial abilities.

Tasks for WAZA

Establish a data base

1. Of *in-situ* projects currently supported by members.
2. *In-situ* projects in need of support.
3. Projects already in hand needing further collaborators.
4. Members seeking appropriate projects.
5. Skills available within member institutions.
6. This eventually to be on a website accessible only to members.
7. Make synthesis/ report available for WAZA, PR, members on website.

It is fully expected that this database can be built onto the existing EAZA database.

Form a International Conservation Committee to evaluate and advise on projects and campaigns so that they may receive WAZA endorsement. This committee should be small, able to communicate speedily by e-mail with the WAZA secretariat and

each other and be empowered to seek specialists' advice from within the whole zoo, conservation, and academic communities. Project evaluation to be done using both an explicit set of tools such as the ZSL tool under development and an agreed set of utilization-based expectations and needs developed by WAZA Council and members.

Develop the WAZA brand (logo) to include with the following text: 'World Association of Zoos and Aquariums: United for Conservation'. Zoos are encouraged to obtain the WAZA brand. By the establishment of such a branding process WAZA will be able to capitalize on what its global community is contributing to *in situ* conservation programmes. At the same time, it is expected that projects will benefit from WAZA branding and WAZA global PR and fundraising.

Initiate worldwide campaigns which may receive the support of all members (eg *Threatened*

tropical rainforest) and encourage all members to support it.

Represent WAZA at international legislative meetings (e.g. CITES and Convention on Biological Diversity).

Seek funds: WAZA should achieve an international status which can assist funding from large organizations within both the private and public sectors.

Encourage Collaboration: WAZA should take care that members working in one region inform, and if possible co-operate, with local zoos, zoo associations and other relevant conservation bodies.

Publicize WAZA member zoos: as centres of conservation excellence using every means possible. 🐾



2002 ANNUAL MEETINGS

**HOSTED BY SCHOENBRUNN ZOO,
VIENNA, AUSTRIA**



Conservation Breeding Specialist Group (CBSG): August 10-13

World Association of Zoos and Aquaria (WAZA): August 13-17

International Association of Zoo Educators (IZE): August 17-22

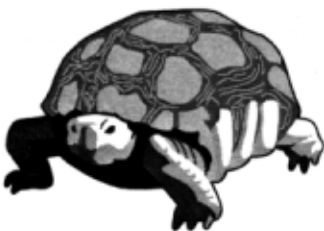
We hope to see you there!

Conservation Breeding acting locally: Perth Zoo's role in Species Recovery in Western Australia

In Australia the majority of mammals that have become extinct (26 species) or are threatened with extinction (29 species) since the arrival of Europeans are in the weight range of 35g to 8 kg. *In situ* conservation programs in Australia face an unusual habitat management problem – predation by introduced species, the European fox and feral cat. The Western Australia Department of Conservation and Land Management (CALM) aims to recover threatened species in Western Australia through broad scale fox control and a program of species reintroduction. Captive breeding is an action in the recovery of many of these threatened species. Perth Zoo and CALM are working collaboratively to achieve these outcomes.

The Western Shield Program of CALM controls foxes by aerial baiting over 3.5 million hectares of Western Australia's conservation estate annually. The aerial baiting is achieved using the toxin 1080 and exploiting the differential tolerance to 1080 of the native fauna of Western Australia and the introduced predators. The tolerance to 1080 of native fauna has resulted from developing of tolerance to the high levels of sodium monofluoroacetate which exists in many native plants of Western Australia. The Western Shield program commenced in 1996 and has an annual budget of A\$ 1.5 million.

CALM is the State Government Agency with responsibility for native wildlife in Western Australia and leads the Recovery Teams for each species. CALM has a large research capability in field ecology as a result of the agency's responsibility for fauna, flora and land management. Like most zoo's, Perth Zoo does not have a large research infrastructure so has had to seek and develop collaborative links with local and national researchers.



The Native Species Breeding Programme (NSBP) was initiated in 1996 after the Zoological Gardens Board agreed that Perth Zoo become a partner in the Cooperative Research Centre for Conservation and Management of Marsupials (Marsupial CRC). The Marsupial CRC is a research organisation with the aim of developing knowledge and tools for the conservation of threatened populations of marsupials and for management of over abundant populations of marsupials. The objective of joining the Marsupial CRC was to gain access to scientific expertise in reproduction and genetics and establish a culture of science at the Zoo. Dr Mark Bradley was appointed the Director of Research in early 1996 and the NSBP was founded shortly after with keepers appointed to the program and managed by the Director of Research. Perth Zoo supplies approximately 45% of the funding of the program and its infrastructure.

The goal of the NSBP is to provide animals for release by CALM, to conduct scientific research into the reproductive biology of the species in the programme and increase public awareness through the Zoo's Education programme. The keepers are trained in basic scientific methods, computing and presentation skills. Where possible keepers participate in fieldwork, releases and post-release monitoring thus gaining a good knowledge of the recovery process. Research staff are members of the Recovery Teams which are responsible for the development, implementation and monitoring of the action plans to secure the recovery of these species in the wild.

Perth Zoo has captive breeding programs for seven species – Chuditch, Dibbler, Numbat, Shark Bay Mouse, Greater Stick-nest Rat, Western Swamp Tortoise and Lancelin Island Skink. Each species breeding program is an integral part of that species Recovery Plans.

Each species presents unique problems for its captive breeding and has required knowledge of reproductive biology, nutrition and behaviour to achieve successful outcomes. Since captive breeding began at Perth Zoo 311 Chuditch, 123 Dibblers, 59 Numbats 201 Shark Bay Mice and 313 Western Swamp Tortoises have been provided for release into habitat under regular predator control.

Several factors contribute to the success of these programmes. We are fortunate the genetic health of the captive populations can be maintained by regular introduction of fresh stock from the wild. Keeping staff are dedicated to the breeding programme and participate in the whole recovery process. Training of keeping staff in scientific methods allows development of sound knowledge of reproductive biology of each species. Suitable microenvironments are developed to

allow expression of most natural behaviours. Pre-release protocols are developed to prepare animals for foraging in the target habitat. Collaboration between Federal and State agencies, Universities and research organisations with significant community involvement is well developed and essential for successful outcomes. 🐾

Submitted by Terry Fletcher, Director of Research (Perth Zoo)

EAZA Atlantic Coastal Rainforest Campaign

Following the Lion Tamarin Workshop of September 2000, and the success of the first EAZA Annual Campaign, it was decided by the EAZA Council to launch an EAZA Rainforest Campaign 2001/2002 focusing on the Atlantic rainforest of coastal Brasil. The goals of the campaign are to raise awareness about the conservation needs and conservation programmes in the Atlantic coastal rainforest and to raise money for the Lion Tamarin of Brasil Fund. The four lion tamarin programmes will be used as "flagship programmes" for conservation efforts in the region and as models for the development of conservation programmes in general. In addition, the campaign will be used to increase public awareness about other endangered species in the Atlantic coastal rainforest. We hope that this campaign will provide opportunities for zoos to further participate in and support *in situ* conservation projects in general and the lion tamarin projects in particular.



There are several reasons why the Rainforest Campaign was chosen for the 2001/2002 annual EAZA campaign. As the Atlantic coastal rainforest of Brasil is a priority area for World Association of Zoos and Aquariums' conservation activities, this campaign is in accordance with WAZA recommendations. The development and organization of the conservation programmes for the four lion tamarin species, some now long in existence and built on collaboration of diverse parties, can serve as models for other conservation programmes. Most zoos keeping one or more of the four lion tamarin species also use them as flagship species for their conservation efforts, thus the

campaign will also support already existing conservation activities.

The campaign is coordinated by the people responsible for the EAZA Lion Tamarin Workshop in 2000 (Kristin Leus, David Field, Jeremy Mallinson and Bengt Holst), and is supported by IBAMA and the International Committee for Conservation and Management of the Lion Tamarins (ICCM). The

campaign will be launched at the EAZA Annual Conference in Prague and will continue until the 2002 EAZA Annual Conference. It is aimed at EAZA institutions and their visitors and will of course be accompanied by regular updates on the EAZA website (www.eaza.net), updates in EAZA News, press releases, etc. A packet with information will be distributed to all EAZA institutions. This packet was produced by the planning group, supported by the species coordinators

and European studbook keepers for the involved species. It should be used by the zoos and aquaria in their own way to increase awareness about the conservation programmes and the institutions' position in these programmes, as well as to create funding for further conservation efforts.

It is EAZA's hope that the campaign will have a long-lasting effect through a better understanding of the existing conservation programmes and a more direct involvement of the European zoo world. The campaign will thus contribute to the fulfilment of the accepted obligation of zoos "to contribute to animal conservation". 🐾

Submitted by Jeremy Mallinson and Bengt Holst

Conserving Southern African Breeding Seabirds

Introduction

In Southern Africa, as elsewhere in the world, seabirds face a number of threats due to changes brought about by human activity and its consequences. Although many southern African seabirds breed at protected sites, away from the direct effects of human development, they are not immune to these pressures, and a number of them are considered to be at serious conservation risk. Because many species of seabirds have wide distributions, often crossing international boundaries, their conservation status may be improved through internationally-coordinated efforts.

Conservation Status

Most of the 15 Southern African seabird species breed on islands and rocks close inshore of the coasts of southern Angola, Namibia and the Northern, Western and Eastern Provinces of South Africa. A few species and populations also breed on mainland cliffs, coastal dune fields, salt pans, estuaries and inland localities. Of the 15 species, the African Penguin (*Spheniscus demersus*), three of the four cormorant species, the Cape Gannet (*Morus capensis*), two of three species of gulls and one of four tern species are endemic to the region.

Nine of the 15 Southern African breeding seabird species are listed in South Africa's Red Data Book as regionally threatened in one of three risk categories (Endangered, Vulnerable or Near-threatened). Risks facing Southern African seabirds include

- Oil pollution (affecting especially the African Penguin)
- Fishery interactions (both direct mortality from being caught in nets and on hooks, and the indirect effects on food supply of over-fishing)
- Predation by an increasing fur seal population; habitat alteration and loss (e.g. from guano scraping on islands, mainland diamond mining and vegetating dunes)
- Presence of alien predators (such as feral domestic cats *Felis catus* on Dassen and Robben Islands); and
- Human disturbance from inadequately controlled tourism and recreation (such as of the mainland-

breeding Damara Terns *Sterna balaenarum* by off-road vehicles in coastal sand dunes and flats).

Much publicity has recently occurred from the effects of the *Treasure* oil spill on the African Penguin, and the species' parlous conservation state. African Penguin numbers have been decreasing for nearly a century and some former colonies have shrunk to extinction. Much less well known is the loss of about half of the very few mainland breeding localities of the Endangered Damara Tern in South Africa to human disturbance and habitat loss to alien vegetation in the last two decades. The South African population is now less than 100 pairs and it may be slipping quietly to extinction within the country, leaving only the much larger Namibian population in existence. Whether the species breeds in southern Angola still needs to be proven.

All South African seabirds are currently protected under the Seabirds and Seals Protection Act of 1973. Most South African (but none of the Namibian) islands are legally protected as nature reserves or national parks. Very few have formally adopted and publicly available management plans. Most mainland breeding sites are not formally protected.

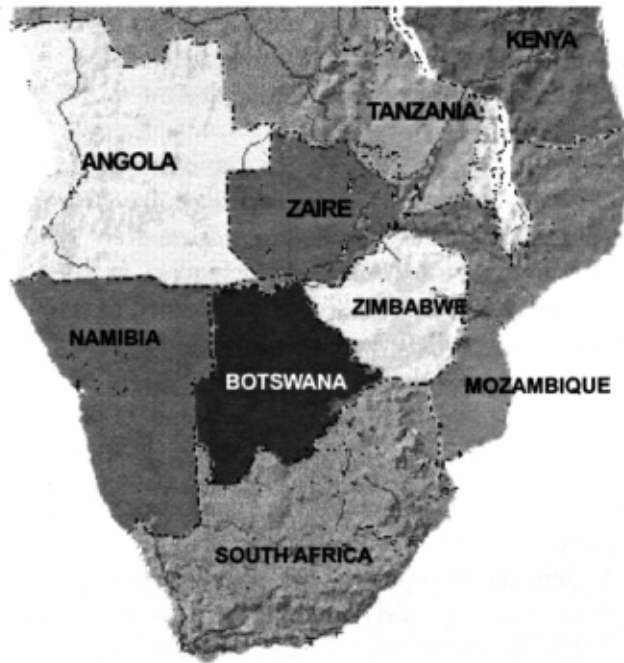
The Bonn Convention

A number of international agreements have the potential to enhance the conservation status of Southern African seabirds, such as

- the Man and the Biosphere Programme of the United Nations Educational Scientific and Cultural Organization (UNESCO)
- the Convention Concerning the Protection of the World Cultural and Natural Heritage (World Heritage Convention)
- the Convention on Biological Diversity (CBD)
- the Convention on Wetlands of International Importance, Especially as Waterfowl Habitat (Ramsar Convention) and
- the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES).

However, the Convention on the Conservation of Migratory Species of Wild Animals (Bonn Convention or CMS) is considered to hold out the most promise for conserving southern African breeding seabirds.

All Southern African seabirds may be considered migratory in terms of the Bonn Convention, since their



Map of Southern Africa

ranges cross international boundaries, including into the high seas. A resolution calling for collaborative action inter-sessionally by range states of the Appendix II-listed African Penguin was adopted at the 6th Conference of Parties of the Bonn Convention, held in Somerset West, South Africa in November 1999, giving impetus for the negotiation a Memorandum of Understanding (MoU) by the range states, only one of which needs to be a member of the parent Bonn Convention.

Developing the Memorandum of Understanding

Following the Fourth International Penguin Conference held at La Serena, Chile in September 2000, a conservation workshop hosted by the Conservation Breeding Specialist Group gave full support to a proposal emanating from the Avian Demography Unit that a Memorandum of Understanding (MoU) for the African Penguin be negotiated between South Africa and Namibia, the sole breeding range states for the species (see *CBSG News* Vol. 12, No. 2, September 2001, pp. 20-21). South Africa is a member of the CMS, although Namibia and Angola are not. The need for such an instrument grew out of several previous meetings hosted by CBSG that considered the conservation status of penguins, and of the African Penguin in particular. Such an international instrument would enable collaboration of research and conservation efforts over the species' full breeding range, and

will represent a proactive conservation effort to complement the essentially reactive (but heroic) efforts of those organizations, most especially the SANCCOB Foundation, that are involved in rehabilitating oiled penguins in South Africa.

It is now considered desirable to expand the scope of the proposed penguin MoU to cover all the continental breeding seabirds of the three countries, given that there is much overlap of conservation threats between them and those facing the African Penguin. A necessary preliminary action will be for South Africa to nominate the extra breeding seabird species that share breeding ranges with Angola and Namibia to Appendix II of the Bonn Convention at its next Conference of Parties, to be held in Bonn, Germany in September 2002.

The MoU should contain an Action Plan which, *inter alia*, allows for cooperative research and monitoring, oil pollution contingency planning, adoption of eco-tourism guidelines, production of management plans for breeding localities, especially islands, consideration of the food requirements of avian predators in the management of commercial fisheries and the need for marine protected areas.

A Southern African Breeding Seabird Workshop

A Conservation Assessment and Management Plan (CAMP) Workshop to produce a draft MoU and Action Plan, as well as to re-assess the IUCN category-of-threat status of the seabirds, is scheduled to be held in Cape Town from 4-8 February 2002. It will be jointly facilitated by Onnie Byers, CBSG Program Officer and Yolán Friedmann, of CBSG-South Africa. Work has now commenced preparing the background papers for the workshop, including the draft nomination texts for the Bonn Convention. Partial funding has been secured from the African Seabird Group, Namibian Nature Foundation, Penguin Fund of Japan, World Wide Fund for Nature – South Africa, AZA's Penguin Charadiiformes and Pelicaniformes TAGs and the African Penguin SSP to cover the workshop costs; further applications to support CBSG involvement are pending.

*Submitted by John Cooper
Chief Research Officer, Southern
African Seabird Conservation
Programme, University of Cape Town*



International Partulid Programme Progress Report

Field status review

Over the first half of 2001, Dr Trevor Coote pulled together the huge amount of field data as well as all of the previous sets of conservation fieldwork. The executive summary of the resultant report, *An urgent briefing report for the French Polynesian Government, associated agencies and the IUCN on the conservation status of the endemic tree snails (Partulidae) of French Polynesia (May 2001)* is outlined below.

Executive summary

This briefing document has been produced in response to the latest set of extensive fieldwork conducted earlier this year on the Society Islands. This survey work has re-emphasised the parlous state of the endemic tree snail species on Tahiti (now the last remaining Society Island to retain its endemic tree snail fauna). French Polynesia's unique tree snail species are of the utmost scientific significance, and play an important role in the ecology of the forests and in the rich cultural heritage of the region. It is now certain that without urgent action these last surviving field populations will be lost as a result of predation by the invasive predator *Euglandina rosea*.



The report summarises the findings of over ten years extensive field research data that has been generated by a broad range of scientists, conservationists, NGO groups and concerned individuals. Although elements of these data are independent works in their own right and will be published as such, we thought it important to make these data available now so that all those concerned for species conservation in the region can benefit from a comprehensive overview of the now critical situation. Research has demonstrated that effective and inexpensive practical conservation measures could easily be taken to help protect the four surviving Tahitian *Partula* species (and one *Samoana* species) from otherwise certain

extinction in their natural range, and serve as a mechanism for re-introducing other *Partula* species that have been lost (see recommendations below).

These documents also contain the key data necessary for the development of a strategic Action Plan to protect the Tahitian species and to prepare the way for the re-establishment of lost *Partula* species on the other Society Islands. We urge all concerned to take concerted action while there is still time to make a difference.

Conclusions and Recommendations

Development of an in-region conservation strategy for the Partulidae of the Society Islands, to include:

- Urgent action to prevent the otherwise certain extinction of the last remaining partulid species on Tahiti. The most practical conservation measure needed is the ring-fencing of threatened populations in Faaroa Valley which contains representatives of all five species
- Continued surveys, and monitoring of the Tahiti population isolates.
- Urgent surveys to determine the conservation status of the Marquesan *Samoana* populations
- Continuation of the conservation effort to maintain viable *ex situ* populations of partulid species. This task is also reliant upon the development of a clear in-region conservation strategy.

Progress with establishing partulid reserves on Tahiti

Partulid Programme members raised the necessary funding for Trevor Coote and Eric Loeve to conduct urgent follow-up survey work in Faaroa Valley and identify the best location for establishing reserves. Working closely with the Polynesian land owners, Trevor and Eric have completed the technical preliminary work and an ideal site has been found that still contains wild populations of all five surviving species. A grant has been provided by the *Biodiversity Trust* to cover all construction costs. It is planned to establish the reserves before the onset of this year's rainy

season or, failing that, immediately thereafter.

Husbandry guidelines

Although a series of husbandry and diet trials are still in progress (see *Partula 2001* report) a review of results in respective holding collections has enabled us to produce a full set of husbandry guidelines. These will be available to discussion at the meeting.

Redeveloping the programme studbook database

The last year has seen tremendous progress in the redevelopment of the original studbook database, which has now been expanded to address a more comprehensive set of management considerations (hence the rename: *species management system*). It's been designed to allow each participating institution to enter its own collection data directly onto the system which can then be routinely uplifted to the

central database via a straightforward email attachment.

A lot of thought has also been given to the reporting side and we can now easily pull up a range of demography trend and rate data (including fecundity, death and growth rates). Husbandry guidelines and other practical programme data have also been incorporated.

As the partulid programme is all about group (stage-based) management, we've used this redevelopment work as a case study for informing the wider population management issues identified by ISIS. The outstanding need now is to address how we can effectively determine quantitative genetic relatedness within and between populations. 🐢

Submitted by Paul Pearce Kelly

Bushmeat Crisis

The out of control trade in bush meat, in many parts of Central and West Africa, appears to be just one more component in a more general crisis scenario. The public and the decision-makers in most first world countries seem to have become increasingly fatigued and frustrated with the cycles of civil unrest, armed conflicts and the resulting humanitarian disasters. While in other parts of the world our political leadership and the court of public opinion found and finds it relatively easy to decide on aggressor and victims - Kosovo and East Timor - this is not the case in Africa. However on the environmental and wildlife fronts the outside observer seems to have less of a problem to decide where he or she stands. Increasing the level of awareness, as far as the seriousness of the bushmeat crisis is concerned, has to be the first step to create the kind of public opinion backlash - as was the case with the ivory crisis, whaling, seal clubbing etc. - where OUR politicians



feel obliged to react and act. Once we have their ears and are able to push their fingers towards the purse strings, we might be able to come up with the kind of carrots and sticks which represent real negotiating power when confronting the leadership in the bush meat crisis countries. If we can use the bush meat issue and its potential for a massive public outcry, to push for and assist with better governance in the countries concerned, the ultimate beneficiaries will not just be the great apes, the elephants and the lesser creatures, but the citizens of these countries and their future generations.

What is clear is that the so called "quiet diplomatic approach" of the past has not worked and is not working and that things can hardly get any worse. Maybe time has come to take some more risks, to maybe be politically less correct and demand real 'cultural change'. As long as our closest animal relatives, the great apes, are staple food for the elite in the urban centers, it judges all of man-kind and us as well as the consumer. 🐢

Submitted by Karl Ammann

Javan Gibbon Rehabilitation for Conservation Project

The Silvery Gibbon Project (SGP) of Perth, Australia was established in 1991 to assist the *in-situ* conservation of the Javan gibbon. Funds are raised through events and activities, generating money from members and other interested people. SGP has been supporting a number of projects in Java to help protect Javan gibbons, with an ultimate aim to build a captive breeding/reintroduction center that was recommended in the 1994 PHVA.

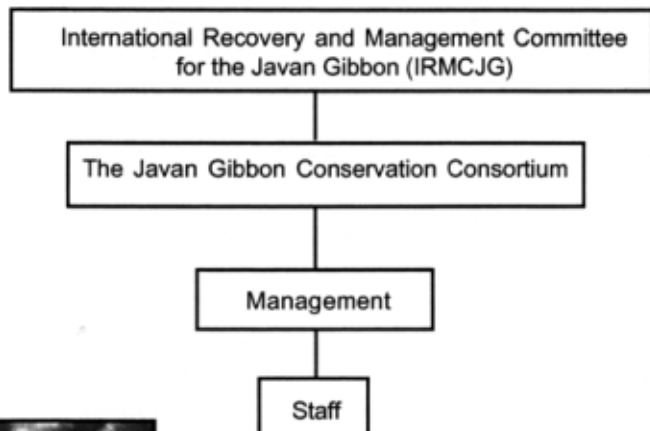
The objective of the center is to receive donated or confiscated Javan gibbons (*Hylobates moloch* spp) from captive sources and to place them into a rescue, rehabilitation, breeding and reintroduction program. The aim is to assess their medical and psychological health, and to restore these gibbons to full health. The ultimate aim is reintroduction into the wild. This objective however, is not short term as behavioural rehabilitation also involves the gibbons' abilities to form family groups. Any re-introductions would be based on IUCN recommendations, along with specific guidelines for gibbon reintroduction based on IUCN/SSC recommendations.

The management committee for the center will be made up of selected representatives from a consortium of Indonesian and international stake holders including the PHKA (Relevant Indonesia government department) and be responsible for the long term strategy and policy of the center. The Director (Barita Manullang) of the Project and Assistant Director (Ida Yuniata) are co-opted to the committee.

SGP had raised \$30,000 USD and required another \$30,000 to construct the centre. In order to apply for funding through the Margot Marsh Biodiversity Fund, SGP required a USA based partner institution. After the Javan Gibbon Workshop held at the International Primatological Congress in Adelaide, Conservation International agreed to apply for matching funds from Margot Marsh. Equal funding was successfully obtained. Land has already been obtained for the centre and construction is to start in the near future.



Project Structure



An International Recovery and Management Committee for the Javan Gibbon (IRMCJG) will be formed based upon the model that has proven so successful in managing both the captive and wild populations of critically endangered Golden Lion Tamarin in Brazil. Indonesian and foreign stakeholders, experts and interested parties will comprise the committee.

The scope of the committee will include but not be limited to the following:

Repatriation: Although institutions outside Java will be part of the international captive management of the species, the repatriation and the breeding of the species *in-situ* will be the priority of the committee.

Return of Title: Holding institutions that become signatories to the Memorandum of Understanding will accept the terms established by the committee. The animals are to be included in a scientifically coordinated breeding program.

International Studbook: Genetic and demographic analysis of the captive population.

Rehabilitation/Reintroduction Guidelines: Will be formulated in conjunction with the conservation plan for wild populations in collaboration with PHKA

For more information about the Silvery Gibbon Project please see the website: <http://www.silvery.org.au>
Submitted by Leif Cocks, Barita Manullang, and Dianne Gates

Rottnest Island, Australia: An outline of the Island ecology and conservation outcomes

The Island Geology/Hydrology

- The largest island in a chain of small limestone islands off the coast of Perth
- Rottnest is composed of Quaternary limestone and dune sand and is fringed by limestone reefs
- Evidence of Quaternary sea-level changes
- Hypersaline salt lakes
- Extremely limited surface fresh water



The Rottnest Marine Reserve

- Impacts of the Leeuwin Current
 - Water temperatures
 - Species diversity
- Marine landforms
- Water quality

Conservation Strategies/Techniques

- Sullage strategy
- Moorings policy
- Anchorage sites
- Oil spill response

Island Vegetation: Changes Over Time

- The Island was initially densely covered with an associated woodland of *Melaleuca lanceolata* and *Callitris preissii*
- European settlement in 1831 - clearing for development, farming, salt collection, fire
- Impact of the protection of Quokka
- Impact of increased tourism
- Current status - 170 species, 100 native species

Island Fauna

- Reptiles - snakes (2), legless lizards(2), skinks (14), geckos (2), sea turtles (4)
- Amphibians - Frogs (3)
- Mammals - marsupials (1), bats (1), dolphins (1), sealions/seals (2), whales (3)
- Birds - Seabirds, raptors, waders - transequatorial migrators, ducks, woodland species, 112 species recorded
- Fish - reef dwellers, seagrass inhabitants, pelagics, over 360 species (97 tropicals)
- Crustaceans - crabs, crayfish, hermit crabs, prawns, barnacles
- Introduced species - cats, mice, peafowl, pheasant

Conservation Strategies/Techniques for Flora and Fauna

- Habitat restoration and protection - woodland restoration, weed management, formalised access (walk trails, board walks, beach access) brushing, plantings
- Regulations to protect flora, fauna and landforms - Rangers/Honorary Rangers to ensure compliance
- Procedures for injured fauna
- Eradication project for feral cats
- Monitoring and research
- Education and interpretation
- Sanctuary zones for high conservation value areas
- Bag and size limits for recreational fishing

The Challenge for Rottnest Island:

To achieve a sustainable balance with regard to the protection and conservation of the environmental values of the Island and the provision of tourism facilities and services



Submitted by Claire Wright, Rottnest Island
Conservation Manager

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- Schonbrunner Tiergarten GmbH, Austria**
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Barbara Sommersacher
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Yolanda Matamoros
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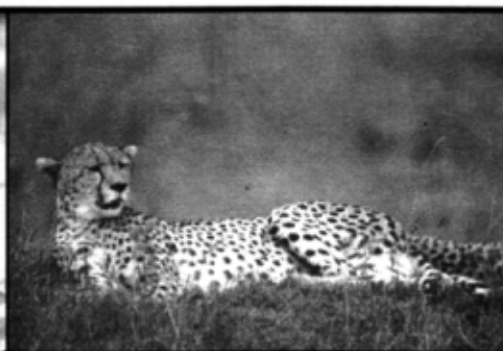
Bohumil Kral



CBSG News



*Newsletter of the Conservation Breeding Specialist Group
Species Survival Commission
IUCN – World Conservation Union*



CBSG Program Officer Position Available

Required:

- Advanced Degree: PhD, or DVM
- Good social skills
- Willing to move to Minnesota

Preferred:

- Working knowledge of a language other than English
- Working knowledge of GIS



This position provides the opportunity for international travel (25% of time).

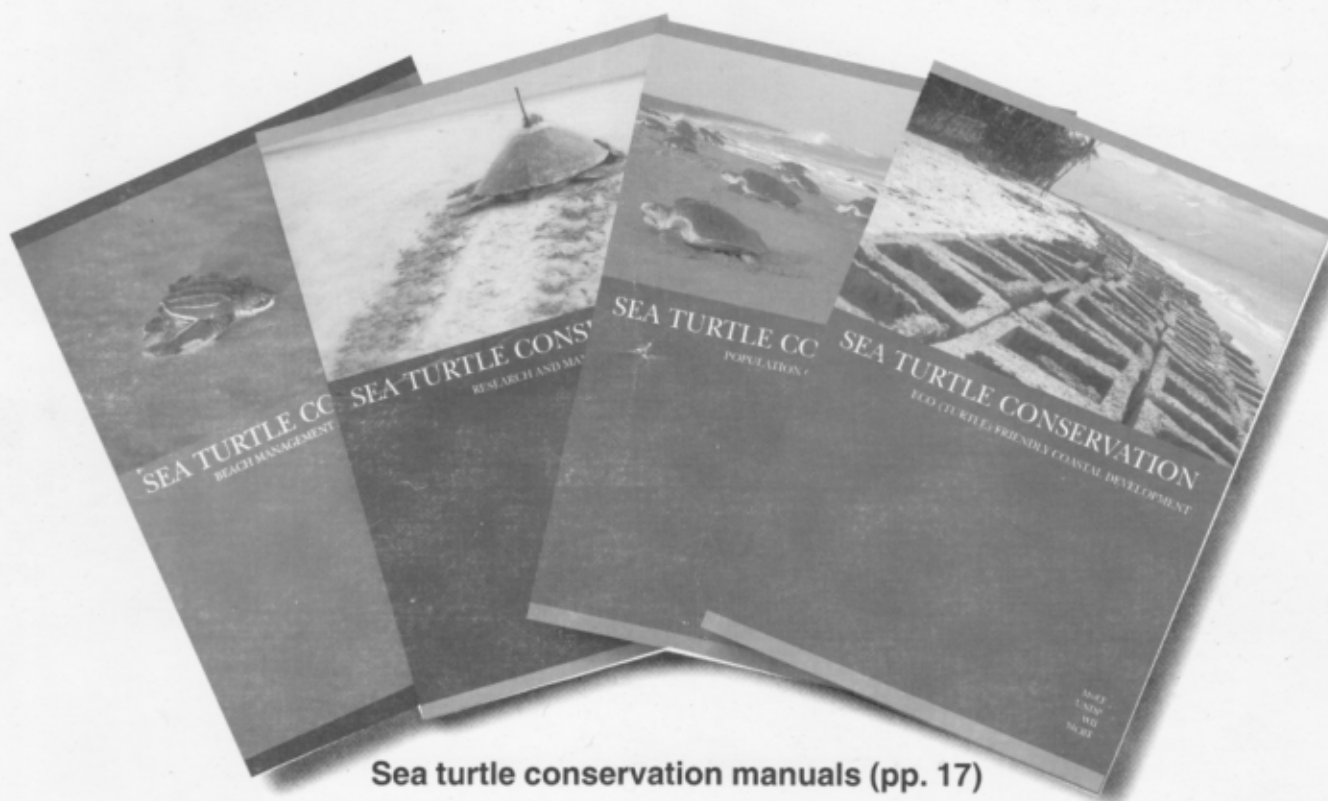
Facilitation skills will be taught upon hire.

For more information please contact the CBSG office at (952) 997-9800.



Kachhapa

A newsletter for the Indian ocean on sea turtle conservation and management



Sea turtle conservation manuals (pp. 17)

EDITORIAL

Showing the way:
Mass hatching at Rushikulya, Orissa

NOTES

Sea turtle conservation at Phra Thong Island, South Thailand
Leatherback turtle in Kerala, India
Turtle conservation in Maharashtra, India
TCP sea turtle program in Sri Lanka

AND

Sea turtle Symposium 2004 Announcements

Issue No. 9
October, 2003

HELP US WITH OUR MAILING LIST

Since this newsletter hopes to serve as a link for coastal and marine conservation, the more people we can reach, the more effective it will be. You can help by passing the newsletter around to people and organizations who are interested, and by helping us build up our mailing list. Please send us names and addresses of individuals, NGOs, research institutions, schools and colleges and anyone else who would be interested in receiving Kachhapa.

CALL FOR ARTICLES

Kachhapa, the newsletter, was initiated to provide a forum for exchange of information on sea turtle biology and conservation, management and education and awareness activities in the Indian subcontinent, Indian Ocean region, and south/Southeast Asia. The newsletter also intends to cover related aspects such as fisheries and marine biology. Kachhapa articles are peer reviewed. Kachhapa will come out two to three times a year. We request all our contributors and readers to send us information from their part of the subcontinent or Indian ocean region, including notes, letters and announcements. We also welcome casual notes, anecdotal accounts and snippets of information.

OPINION

In addition to information and articles, we now invite your opinion on subjects related to turtles, their habitats and conservation.

BIBLIOGRAPHY

We plan to publish a complete bibliography of literature on sea turtles in the Indian subcontinent in the near future. Meanwhile, the bibliography will be available at our website. We would welcome any additional references that we have missed and copies of articles, papers or reports that are absent from the bibliography.

ALL MATERIAL SHOULD BE SENT TO:

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Or by email to:

editors@kachhapa.org

Email attachments should be sent as text files or Word 2000 documents (or any older version of Word). Please refer to earlier issues for formatting articles and references.

KACHHAPA ONLINE IS AVAILABLE AT [http:// kachhapa.org](http://kachhapa.org)

Editorial
Showing The Way:
Mass hatching of olive ridleys in Rushikulya, Orissa

Belinda Wright¹ & Biswajit Mohanty²

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Orissa has three mass nesting sites for olive ridley turtles. One of them is located at Kantiagada beach at the mouth of the Rushikulya River in south Orissa. The site is close to a national highway and is now quite well known and receives hundreds of visitors during turtle mass nesting and hatching. Previously unknown to the outside world, the Rushikulya nesting site was discovered in 1994 by Bivash Pandav, Wildlife Institute of India, Dehradun, while conducting a survey of olive ridleys on the Orissa coast. Rushikulya is located in Ganjam district, perilously close to local settlements and National Highway No. 5, which connects Kolkata to Chennai. Artificial lights of villages and nearby settlements are visible on the beach. The glow from Ganjam town and from the highway and the headlamps of night-time traffic are also visible on the beach.

Since sea turtles are highly sensitive to light, this has had tragic consequences for the hatchlings. When hatchlings emerge, they find the sea by locating the brighter horizon, which is usually moonlight or starlight reflecting off the sea surface. In Rushikulya, hundreds of thousands of tiny hatchlings are attracted towards artificial lights and perish. Just behind the nesting beach are grass fields where the hatchlings get stuck in the wiry grass. They struggle all night and finally die by sunrise due to exhaustion. Predators such as crows, sea gulls, eagles and dogs devour the ones that survive.

Attempts have been made on several occasions in the past to curb the disturbing lights. Many local people, who are generally supportive of turtle conservation, have responded by switching off the village lights but some lights remain. A nearby chemical factory also responded by switching off its powerful floodlights whenever requested by Operation Kachhapa volunteers and the Forest Department.

During the mass nesting that took place at Rushikulya in 2001, volunteers and Forest Department staff watched helplessly as hundreds of thousands of hatchlings were disoriented by the lights and died in

the grass fields. Each morning after the mass hatching, thousands of hatchlings were collected in buckets and released into the sea. But these hatchlings had already spent many hours struggling in the grass, and their chance of survival was substantially diminished. A way had to be devised to save the hatchlings from certain death due to their disorientation by artificial illumination.

Consultations with Dr. Bivash Pandav, Wildlife Institute of India led to the idea of putting up a protective barrier along the beach which would stop the hatchlings from moving away from the sea. Since the idea had never been tried on the Orissa coast before, the material and design was critical. The crucial issue was that if the design was not appropriate and needed modification, nothing much could be done since hatching is completed within a short period of 4-5 days. Various alternatives were considered during the planning stage, ranging from plywood boards to polythene sheets. Eventually, fine mesh or mosquito netting was decided upon as most suitable. Its small mesh size meant that hatchlings would not get entangled in it. At the same time, it would not obstruct the beach winds and lead to piling up of sand making it useless. Its height was kept low – around one foot. Since the hatchlings would be crawling on the sand, greater height would be superfluous. Also, a higher net would offer more resistance to strong beach winds, which would lead to its collapsing. The net's raw upper and lower edges were sewn over with white cloth tape to give it strength and seal the loose threads.

During April 2003, the net was erected, using stakes of two sizes. A small split bamboo stake of approximately 18 inches was put up every 5 feet. A larger and stronger round bamboo stake of approximately 3 feet was used every 25 feet. Small strings were stitched to the tapes edging the top and bottom of the nets to tie them to the bamboo stakes. This support mechanism kept the net in an upright position despite the soft foundation of beach sand. Approximately 1500 metres of protective net barrier was put up at the hatching beach by Operation



Hatchlings stopped by net barrier at Rushikulya in April 2003

Kachhapa. The Forest Department put up a net of similar length and slightly greater height.

Hatching started while darkness was yet to cover the beach. One of the authors, who was present on the beach, watched as the first group of hatchlings promptly started crawling towards the landward side and were stopped by the net. After floundering for approximately five to ten minutes, they made an about turn and marched towards the sea without any help. However, this was during daylight.

Throughout the night, hatching went on at a frenetic pace and the beach was soon covered with tiny hatchlings. While surveying the length of the net, we found that there were thousands of hatchlings stuck at the base when they tried to move towards the landward side. This was after midnight when hatching was at its peak.

We also discovered that the maximum concentrations of disoriented hatchlings were found at those stretches

of the net behind which there were strong artificial lights. We had not anticipated that the hatchlings would climb on top of each other in their frenzy. Due to the massive accumulation of the hatchlings at the net barrier, it collapsed at some places and some hatchlings wandered out. They were promptly picked up in buckets by volunteers and released on the beach a few metres from the shore. This was to ensure they acquired beach imprinting, which is vital for their return, as adults, to their natal beaches for nesting.

As the morning dawned, it was time for us to evaluate the success of this new method of protection. It was clear that casualties had been greatly minimized. According to a very rough estimate, the casualties this time were less than 5 % of the total hatchling population, whereas during the mass hatching season of 2001, it was as high as nearly 70-80 % of the hatchlings. The nets were put to use for the remaining five days of hatching, with our volunteers and the Forest Department guards keeping a close watch on them to ensure that they did not collapse.



OpK helpers collecting hatchlings at net barrier for release

Conservation Project: Sea turtles at Phra Thong Island, South Thailand

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Phra Thong (PT) is one of three relatively large islands located just off the coast of Phang Nga province on the south west coast of Thailand (Fig 1). Fine sandy beaches (total length 15 km) are situated on the west coast, whereas the east coast is covered with mangrove forest. Three fishing villages are located on the island along with a few tourist resorts. Phra Thong was chosen as a focal point for conservation activities because of its central location along the coast of the Andaman Sea and for its importance as a sea turtle nesting site.

The Sea Turtle Project (STP) at PT Island began in 1996 and has focused on three main aspects: scientific research and conservation, an educational programme for the local community and conservation awareness. Research shows that stocks of olive ridley and leatherback turtles in the Andaman Sea have been decimated to only tens of females nesting annually because of long-term excessive egg harvests (Limpus, 1995). Data collected on site before the beginning of the STP indicates a drastic decline (90%) in sea turtle nesting along the Andaman coast from 1985 ($n = 360$) to 1995 ($n = 36$) (Chantrapornsy, 1997).

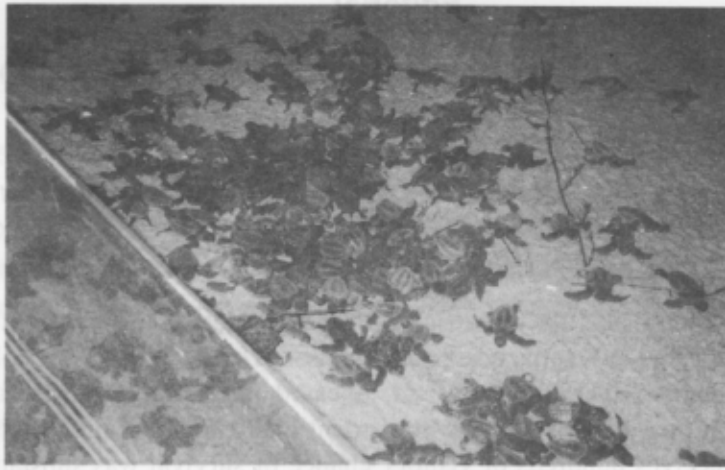
On PT Island, the STP have recorded 4 to 13 sea turtle nests per season since 1996 (Aureggi *et al.*, in press a). Most nests belong to the olive ridley turtle (*Lepidochelys olivacea*), with the leatherback (*Dermochelys coriacea*) and green turtle (*Chelonia mydas*) nesting only occasionally. Although most of the information in the literature refers to sea turtle nests without specifying the species, some details were found for the olive ridley turtle. According to Chantrapornsy (1992) an overall decline of 82% in olive ridley nests was recorded at Phra Thong between 1979 ($n = 238$) and 1990 ($n = 42$), with a similar decrease reflected in data collected by the STP between 1996 and 2003 (Fig.2). Historical data reflects a massive sea turtle egg harvest in Thailand estimated to be about 400,000 eggs per year, of which 60,000 come from the Phang Nga province in which Phra Thong is located (Polunin, 1975). The low number of olive ridley nests found since 1996 at Phra Thong is likely to have been caused by excessive egg

harvests documented over the preceding 20 years in the vicinity of the island.

With the help of the Phuket Marine Biological Center staff, Thai and foreign teachers have been conducting regular programmes in local schools. Topics include conservation and biology of sea turtles, different animals on the island, hornbills, and coral reefs and their inhabitants. The children's response to the programme has always been positive, both during the lessons and on Children's Day, when schools are invited to the STP base to participate in games and activities, take guided visits around the project facilities and to assist with the turtle releasing ceremony. During the 2002 and 2003 seasons, villagers have also been collaborating with the STP by donating turtles incidentally caught in fishing nets. A total of seven green turtle and five hawksbill turtle juveniles have been thus rescued and released by the project.

The protection activities of the STP have also contributed to the decrease of egg poaching (Aureggi *et al.*, in press b). STP has protected all nests and safely released more than 2000 hatchlings into the sea. In parallel, conservation awareness activities have been conducted among tourists on the island. A display area at the STP is open to visitors and guided site visits are scheduled. Slide shows and talks are also part of the programme. One of the main threats, egg poaching, has been virtually eliminated through conservation education, but intense fishing activities near the nesting beaches during the breeding season and plans for tourism development threaten the survival of the small nesting population. To prevent further decline of this population, a long-term education programme among fishermen and lobbying activities at both provincial and national government levels to limit tourism development are needed.

Having established a research and conservation project based on the island, which is approved by the National Research Council of Thailand, and having evaluated the status of the nesting population, the STP now intends to focus on studying the mortality rate at sea due to fishing activities. The STP plans to limit any



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Hatching started while darkness was yet to cover the beach. One of the authors, who was present on the beach, watched as the first group of hatchlings promptly started crawling towards the landward side and were stopped by the net. After floundering for approximately five to ten minutes, they made an about turn and marched towards the sea without any help. However, this was during daylight.

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OpK helpers collecting hatchlings at net barrier for release

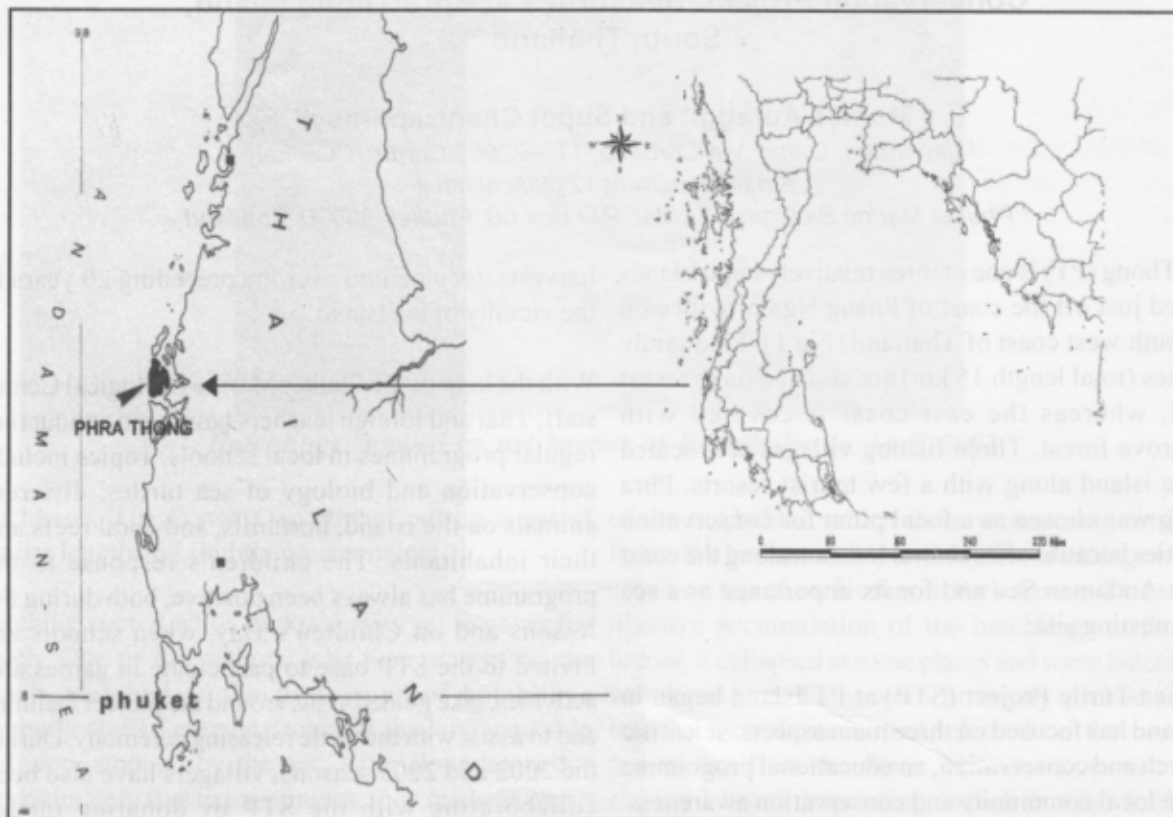


Fig 1: Phra Thong island, Andaman sea, southwest coast of Thailand

further decrease of the nesting population and to establish a rescue center which would decrease the mortality rate due to fishing activities in the area.

Acknowledgements: The authors would like to thank Carole Beauclerk for her voluntary work in

coordinating the educational program and all the volunteers that took part in the project. A special thank you to Loredana Follador for her logistic support, and to the local community for their participation and help. Thanks to Katie Jones for revising the language.

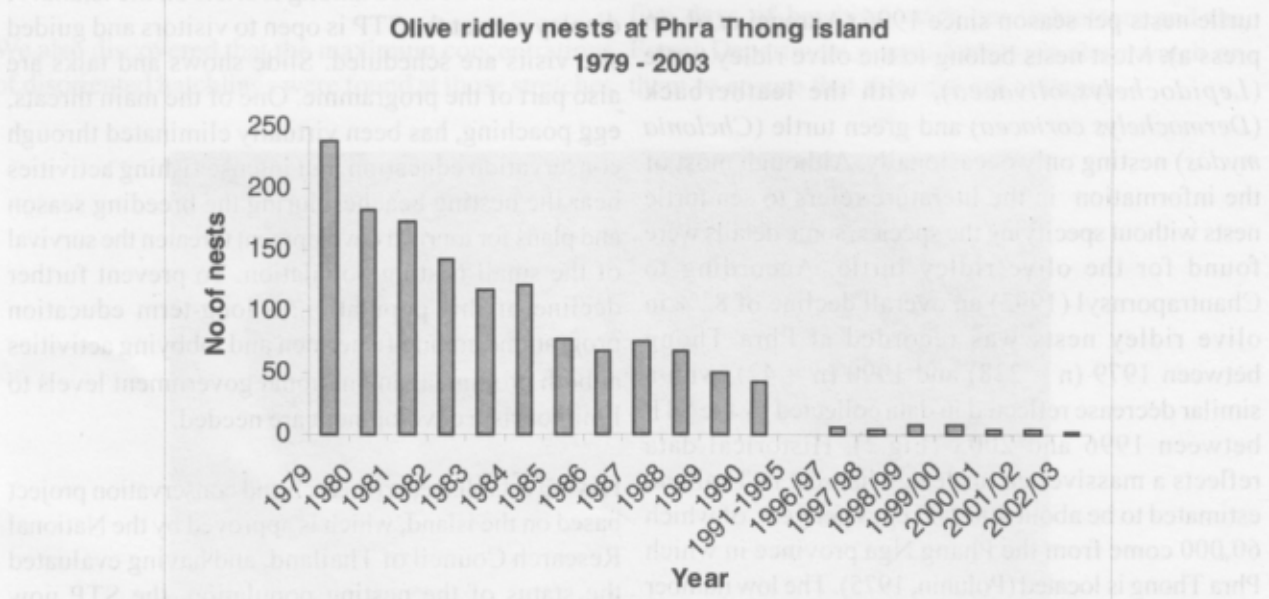


Fig 2: Olive ridley nesting at Phra Thong Island, 1979-2003 (graph adapted from Aureggi and Chantrapornsy, submitted)

References

- AUREGGI, M., G. GEROSA & S. CHANTRAPORNSYL (in press a). An update of sea turtle nesting along the Andaman coast of Thailand: 1996-2000. *Proceedings of the 21st International Symposium on Sea Turtle Biology and Conservation, Philadelphia, USA, Feb. 2001*.
- AUREGGI, M., G. GEROSA & S. CHANTRAPORNSYL (in press b). Elimination of egg poaching activity at Phra Thong island, Thailand. *First Italian Meeting on Sea Turtle Biology and Conservation, Policoro, Italy*.
- AUREGGI, M. & S. CHANTRAPORNSYL (submitted). Reproductive biology and conservation of the olive ridley turtle at Phra Thong Island, Andaman Sea, south Thailand. *Phuket Mar. Biol. Cent. Res. Bull.* (submitted August 2003)
- CHANTRAPORNSYL, S. (1992) Biology and Conservation Olive Ridley turtle (*Lepidochelys olivacea*) in the Andaman Sea, Southern Thailand. *Phuket Mar. Biol. Cent. Res. Bull.* 57:51-66.
- CHANTRAPORNSYL, S. (1997) *Status of marine turtles in Thailand*. Phuket Marine Biological Centre. Unpubl. Manuscript. 9 pp.
- LIMPUS, C.J. (1995) Global overview of the status of marine turtles: a 1995 review. In: *Biology and conservation of sea turtles*. (Ed: Bjorndal, K.A), revised edition, 1995. Smithsonian Institution press, Washington D.C. pp 605-609.
- POLUNIN, N.V.C. (1975) *Sea Turtles: reports on Thailand, West Malaysia and Indonesia with synopsis of data on the conservation status in the Indo west pacific region*. Unpubl. report.

Leatherback turtle released into the sea at Vizhinjam in Kerala, India

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Of the five species of the sea turtle occurring in the Indian waters, the leatherback turtle (*Dermochelys coriacea*) popularly known as *eluvai amai*, or *thoni amai* in Tamil, is rare along the Indian mainland. Four species, the olive ridley, green turtle, the hawksbill and leatherback, are known from Kerala waters. However, all except the olive ridley are rare or uncommon. The nesting of leatherback turtle along the Kerala coast has been reported near Quilon by Cameron (1923) and near Calicut by Jones (1959). Strandings of leatherback turtles have been reported along the coast by several authors. Incidental landings of leatherback turtle recorded during the period 1923 - 2003 are given chronologically (Table 1). There are thirteen published reports of the leatherback turtle on the Indian mainland; this the smallest of the specimens reported.

The present note is an account of an accidentally caught male leatherback turtle in shore - seine at Kovalam, near Vizhinjam in Kerala. On receiving a telephone call from Kovalam on 03.04.2001 regarding the capture of a large turtle in shore - seine, one of the authors paid a visit to the site. In the landing center the turtle was identified as a male leatherback turtle measuring 116 cm in total length

with a total weight of 110 kg. The carapace measured 93 cm in length and 68 cm in width. The turtle looked inactive due to the prolonged struggle in the sea to extricate itself from the shore seine.

Many tourists, including foreigners assembled at the spot to see the turtle struggling for life. On seeing that the fisherman were trying to butcher it for its meat, a foreign tourist (a woman) started negotiating with the fisherman for its safe release in to the sea. Finally, their negotiations concluded at Rs.2000 for the release of the turtle into the sea. Again on 8.4.2001 the turtle was recaptured in the same area by the same crew, but seeing that it was the turtle they had released on 3.4.2001 at the request of the foreign tourist, the fisherman released the turtle into the sea.

Shoals of oil sardine are frequently noted along the Vizhinjam coast during March - April period, and there is a some possibility that leatherback turtles follow the shoals and come close to the shore where shore-seine operation is quite regular during this season.

References

- CAMERON, T.H. (1923) Notes on turtles. *J. Bombay Nat. Hist. Soc.* 29(2): 299 - 300.
- DUTT, S. (1976) The Leatherback turtle. *Sea. Food Expo. J.* 8 (1): 35-36.
- EBENEZER, I.P. & J.J. JOEL (1992) On the landing of a leatherback turtle. *Mar. Fish. Infor. Serv., T & E Ser.*, 118: 20.
- JONES, S. (1959) A leathery turtle *Dermochelys coriacea* (Linnaeus) coming shore for laying eggs during the day. *J. Bombay Nat Hist. Soc.* 56 (1): 137 - 139.
- KARBHARI J.P. (1985) Leatherback turtle caught off Devbag. near Malvan. *Mar. Fish. Infor. Serv., T & E Ser.* 64: 23.
- PILLAI, S.K. & C. KASINATHAN (1989) On two species of marine turtles caught off Dhanuskodi, Gulf of Mannar. *Mar. Fish. Infor. Serv., T & E Ser.* 102:17-18
- PILLAI, S.K., S. BADRUDEEN AND BOSE (1995) On a leatherback turtle landed at Rameswaram. *Mar. Fish. Infor. Serv. T & E. Ser.* 140: 11.
- PILLAI, S.K. (2003) Instance of meat of Leatherback Turtle *Dermochelys coriacea* used as food. *Fishing Chimes* 23 (3): 46-47.
- PILLAI, S.K. *et al.* (2003) Community participation in the release of a leatherback turtle) in south Kerala. *Kachhapa* 9: 23
- PILLAI, S.K. & R. THIAGARAJAN (2000) . An updated record of incidental catches of leatherback turtle in India. *4th Int. Symp. on recent trends in life science.* University of Kerala. Trivandrum.
- RAJAGOPALAN. M. 1983. Leatherback turtle *Dermochelys coriacea* washed ashore at Kovalam, Madras. *Mar. Fish. Infor. Serv., T & E. Ser.* 50: 35-36.
- RAO, P.V. *et al.*, 1989. On a leatherback turtle caught from Palk Bay, Off Mandapam. *Mar. Fish. Infor. Serv. T & E Ser.* 95: 9.

Table 1: Records of leatherback turtles on the Indian Mainland from 1923 -2003

Sl. No	Year	Place	CCL (cm)	CCW (cm)	PL (cm)	PW (cm)	FFL (cm)	HFL (cm)	HL (cm)	Sex	WT (kg)	Gear	References
1	1923	Off Quilon, Kerala	212.3	-	-	-	-	-	-	F	272.4	-	Cameron, 1923
2	1959	Calicut, Kerala	190.5	-	116.8	-	-	-	-	F	-	-	Jones, 1959
3	1976	Visakhapatnam Andhra Pradesh	-	-	-	-	-	-	-	-	-	-	-
4	1982	Kovalam, Tamil Nadu	195	119	162	102	110	85	-	F	-	Washed	Rajagopalan, 1983
5	1985	Malavan, Maharastra	149.8	109	142.5	72.5	-	-	-	F	-	Washed	Karbhari, 1985
6	1988	Mandapam, Tamil Nadu	152	81	144.5	83	96	58	-	M	260	Gillnet	Rao <i>et al.</i> , 1989
7	1989	Pamban, Tamil Nadu	162	86	150	87	102	78	37	F	300	Trawl net	Pillai & Kasinathan, 1989
8	1991	Rameswaram, Tamil Nadu	174	120	-	-	180	-	34	F	350	Trawl net	Pillai <i>et al.</i> , 1995
9	1991	Kanyakumari, Tamil Nadu	173.2	132.4	154.7	86	107	68.8	39.1	F	250	Boat seine	Ebenezer & Joel, 1992
10	1998	Vizhinijam, Kerala	150	-	108	78	100	78	39	M	250	Gillnet	Pillai & Thiagarajan, 2000
11	2001	Kovalam, Kerala	93	68	-	-	-	-	-	M	110	Shore seine	present observation
12	2002	Vizhinijam, Kerala	141	106	-	-	-	-	24	F	-	Gillnet	Pillai, 2003
13	2003	Pallithura, Kerala	-	-	-	-	-	-	-	F	-	Shore seine	Pillai, 2003

CCL - Curved Carapace Length; CCW - Curved Carapace Width; PL - Plastron Length; PW - Plastron Width; FFL - Foreflipper Length; HFL - Hind Flipper Length; HL - Head Length

Turtle Conservation in Konkan, Maharashtra, India

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The occurrence and sporadic nesting of olive ridleys is reported along the entire coast of Maharashtra. The major threats to the marine turtles of Maharashtra are from poaching of eggs and adults, incidental catch in fishing nets and due to developmental activities along the coast (Giri and Chaturvedi, 2003). The nesting population has been decreasing due to poaching by man & predation of eggs by the jackal (*Canis aureus*). While on survey for the whitebellied sea eagle (*Haliaeetus leucogaster*) in February 2002, we found 35 nests of turtles along 3 km beach of Velas, Mandangad taluka, Ratnagiri district, Maharashtra. All the nests were empty. Poaching of nests is a regular practice in some of the villages. Locals said that all the eggs were eaten by jackals. Nesting appeared to be good, but eggs were threatened by humans and animals. Hence Sahyadri Nisarga Mitra, Chiplun, (SNM) started a marine turtle conservation project from 2002.

SNM is a registered organization working in nature conservation, nature education and nature research since 1992 in Konkan. Recently, SNM investigated and stopped the smuggling of Indian swiftlet (*Collocalia unicolor*) nests in South Konkan. SNM also successfully completed a status survey of the whitebellied sea eagle in Konkan and is now working for the conservation of the species. SNM regularly undertakes programmes in nature education like nature trail, nature camps, workshops and exhibitions.

SNM started its turtle conservation campaign in Ratnagiri district, Maharashtra from 1st October 2002. Awareness programs among locals were carried out in 45 villages of the 162 km coastline of the Ratnagiri district. Information sheets were distributed at meetings in each village, and boards were fixed on important beaches. Additionally, letters were sent to each village panchayat asking them to protect marine turtles, their eggs and hatchlings. The local Forest department also assisted in the project.

At Velas, about 130 km from Chiplun, SNM has undertaken actual field work. This small village is

mainly dependent on agriculture, with no fishing activity. A small river divides the village and *Casuarina* plantation on the seashore. The beach is minimally populated. Using G.I. mesh and wooden poles, a rectangular hatchery (8 m x 3m X 1m) was erected at the southern side of the beach just above high tide line. To avoid injury by the mesh to hatchlings, the hatchery was lined with a cardboard sheet at bottom. To protect hatchling from avian predators, the hatchery was covered by chicken mesh. A person was appointed to look after the hatchery, and SNM team members frequently visited the project. Local persons and our volunteers walked the 3 km beach at dawn to locate turtle nests. Eggs were collected and relocated in the hatchery. Each nest was numbered and associated data noted. On tentative dates of hatching, the nests were carefully observed, and hatchlings released immediately after emergence.

During the 2002- 2003 season, the first two nests were recorded on December 10, 2002, and last one on 26th February 2003. A total of 50 nests were located and relocated in the hatchery. Out of a total of 5372 eggs, 2734 hatchlings were released with a hatching success of 50.89 %. All nests were of the olive ridley *Lepidochelys olivacea* (Table 1). During the breeding season, 5 turtles returned to sea without nesting. Due to wave action, a 0.60 m high and 200m long sandy wall was formed on beach. This obstructed many turtles from the beach. One dead green turtle *Chelonia mydas* was seen on the beach.

Table 1: Month wise nests, eggs and hatchlings.

Month	No of nests	No of eggs	Hatchlings
December 2002	25	2906	0
January 2003	19	1975	179
February 2003	6	491	1210
March 2003	Nil	0	1157
April 2003	Nil	0	188
Total	50	5372	2734

This is the first sea turtle conservation programme in Maharashtra, and was sponsored by WWF-India, Kolhapur Division, Barve Trust, Pune and many other NGOs and individuals. Locals from Velas Village, Sarpanch and Village Panchayat also helped us in the project. SNM now plans to spread this project to the entire coast of Maharashtra. With the help of locals and the government, we are undertaking sea turtle conservation at 10 to 15 sites in 2003- 2004.

References

GIRI, V. & N. CHATURVEDI (2003) Status of marine turtles in Maharashtra, India. *Kachhapa* 8: 11-15.

TCP, Sri Lanka initiates a new in-situ turtle nest protection programme

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The Turtle Conservation Project (TCP) has launched a new programme to ensure the survival of sea turtles in their natural habitat on the Kosgoda Beach, southwest of Sri Lanka. An extent of 4 kms. of the Kosgoda Beach has become very important due to the fact that five of the seven species of sea turtles – including the green Turtle, the leatherback turtle, the loggerhead turtle, the hawksbill turtle and the olive ridley turtle - frequent this beach annually for nesting.

Coastal communities living along this stretch of beach have made a livelihood on marine turtles by collecting turtle eggs for consumption as well as for sale. Between 500 and 600 turtle nests are deposited annually in Kosgoda and all of them are collected by the poachers and sold to hatcheries or for consumption.

TCP selected 1 km of the Kosgoda beach (which has the highest nesting density) for in-situ conservation of marine turtles while 3 km of the beach stretch would be free for the turtle hatcheries to collect the eggs and to continue with the ex-situ conservation projects. 15 local persons who had engaged themselves in collecting turtle-eggs for sale were engaged in the project's "Nest Protectors" scheme. In introducing the concept of sustainable development

of this marine resource, the TCP has drawn up a plan to transform these egg collectors to 'nest- protectors'. They will also be trained as tour guides for the "Turtle night watch" tourism programme with the assistance of the Ministry of Tourism and the Sri Lanka Tourist Board as a means to providing them with an alternative income source.

The TCP's Kosgoda in-situ marine turtle nest protection and the community development programme is funded by the SGP/GEF of the United Nations Development Programme (UNDP), Sri Lanka and assisted by the Sri Lanka Tourist Board. The opening ceremony of this programme was held on August 7, 2003. TCP believes that this latest programme will ensure the further conservation of marine turtles while helping to uplift the living standards of the fisher communities in the area.

For further details of this programme and for volunteer opportunities please contact:

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FIRST ANNOUNCEMENT
24th Annual Symposium on Sea Turtle Biology and Conservation
(San Jose, Costa Rica, February 22-29, 2004)

Roderic B. Mast

President, International Sea Turtle Society (ISTS),
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Venue and Theme

I am happy to announce that plans for the 24th Annual Symposium on Sea Turtle Biology and Conservation are well underway. The Symposium will take place at the beautiful Herradura Hotel and International Conference Center in San Jose Costa Rica, from February 22-29, 2004. A full array of activities are being planned, including pre and post Symposium travel opportunities; a mini-symposium on Costa Rica's contribution to sea turtle research and conservation; plus banquets, music and cultural shows, a very special auction night and lots of chances to dance, discuss turtles, and enjoy the Latino hospitality for which Costa Rica is famous.

This year's theme will be *Sea Turtle Lifescapes*. It urges us to consider marine turtles as pieces of greater biodiversity landscapes, to discuss the niches that sea turtles fill in marine and terrestrial ecosystems, and to ponder as well their "fit" in Earth's broader Biosphere. More importantly, the 24th Symposium encourages us to analyze our own niche as powerful human components in the selfsame Biosphere, and to express our thoughts and voice our opinions about the most synergistic actions we can take as institutions, governments, a sea turtle conservation "movement", and as individuals, to assure that sea turtles thrive.

I must express my gratitude and recognize my local Organizing Committee consisting of ISTS Board member, Clara Padilla, Mario Boza (Costa Rican Executive Director of The Leatherback Trust) and Marcos Solano (Executive Secretary of the Inter-American Sea turtle Convention); they have already assisted enormously in smoothing the waves and assuring that local logistics are handled ably. Thanks also to the other Costa Rican partners who have demonstrated their unflagging support for the Symposium, including Costa Rican President, Abel Pacheco, the Costa Rican Sea Turtle Network, Conservation International, and officials from

MINAE (the Ministry of Environment and Energy), who are dedicating time and energy above and beyond the call. I am also grateful to ISTS Treasurer, Ed Drane and retiring President, Nicolas Pilcher and his wife Carmen, for having provided useful advice and guidance, not to mention leaving behind some finances from a highly successful fundraising effort that led up to the 23rd Symposium in Malaysia.

Why Costa Rica?

Long before accepting the ISTS Presidency some months ago, I analyzed what would be my goals for a 24th Symposium were I to accept Earl Possardt's persistent pleas. I wanted to: 1) host a fabulous, memorable gathering where ideas could be exchanged and valuable networking take place; 2) provide opportunities for Symposium participants to get out into the field and experience tropical Nature first-hand, and; 3) impact the conservation of sea turtles worldwide by encouraging policy shifts and providing an "attraction" for media and communications attention that would get-the-word-out about sea turtles to communities beyond our own. Furthermore, I wanted to be able to offer all this at a venue that was affordable, safe, fun and logistically uncomplicated for a majority of Symposium participants.

Costa Rica is the epicenter of global ecotourism for a reason. It is a safe, fun, manageable, and relatively inexpensive travel destination. The infrastructure for international visitors is advanced, the airfares are reasonable, and it is very conveniently situated geographically for participants from around the world. There are lots of interesting places to visit post and pre-symposium, including two ocean coasts, and a variety of sea turtle *Meccas* like Tortuguero, Ostional, Nancite, and Playa Grande, just to name a few. Furthermore, Costa Rica is a showcase for biodiversity conservation. It was among the first tropical countries to really take national parks seriously, the first to adopt "ecotourism" as a national strategy,

and first in a handful of other biodiversity and environment achievements from debt-swap, to carbon offset, to bio-prospecting. Costa Rica has not only served as a conservation model for other tropical countries, but perception-wise it is among the first places that comes to the minds of most Northern Hemisphere-dwellers when they think "tropical nature".

Having visited Costa Rica regularly since 1983 when I coordinated the first WATS (Western Atlantic Turtle Symposium) with the late Dr. Fred Berry, I am keenly aware of the important role the country plays as a global leader with respect to sea turtles. Indeed, many consider Costa Rica to be the birthplace of modern sea turtle research and conservation. Famous as the site of Archie Carr's historic Tortuguero green turtle project, launched in the late 1950's and still led today by the Caribbean Conservation Corporation, the accounts of Costa Rican turtles in *So Excellent A Fishe* and other volumes have fueled the imaginations of many a young biologist (myself included). More importantly, they brought sea turtles to the attention of the public for the first time as something other than a soup ingredient – rather, through Archie's stories, sea turtles became mysterious, beautiful and *Excellent* examples of the multiple wonders of Nature. In addition to being Archie Carr's former stomping ground and the site where hundreds of today's active researchers first learned the ropes of beach work, Costa Rica is currently at the center of what is unquestionably one of the top sea turtle conservation issues of our day, that being the vertiginous decline of the Pacific Leatherback. The Baulas de Guanacaste National Park plays a central role as one of the last remaining beach-heads in efforts to conserve the species, and it is indeed an ecosystem anchor in a broad biodiversity landscape spanning several nations from Cocos Island to Galapagos, the conservation of which will be critical to the survival of not only Pacific leatherbacks, but countless other marine species as well.

Thus, for the aforementioned reasons alone, one can easily see that Costa Rica is truly a worthy place to host a Symposium focused on the importance of sea turtles. But the clincher came last November, when I was invited by colleagues from The Leatherback Trust to attend a fundraiser in San Jose for FAICO (The Friends of Cocos Island Foundation). I accepted the invitation, and somehow wound-up at the head table (I am convinced that the name cards were accidentally switched), there surrounded by Costa

Rica's President, Abel Pacheco, former President Rodrigo Carazo, the current Minister of Environment and Energy and his family, a handful of other Ministers, and a plethora of assorted Costa Rican luminaries. Between their speeches that evening, my conversations with these delightful dinner guests naturally centered on sea turtles, and I was overwhelmed by the support I received from them all for the idea of hosting the 24th Annual Symposium in their country. Most of all, I felt not only honored to have had the opportunity to "talk turtles" with the country's President, but thoroughly surprised and pleased to find that President Pacheco is himself a turtle enthusiast. He and the others whom I met that evening demonstrated a deep concern for the plight of sea turtles and their habitats, and a strong commitment to help in any way to support their study and conservation in Costa Rica and to assist the ISTS with the organization of the 24th Symposium.

What is In Store – A Tentative Schedule of Events

The final schedule for the meeting is still under development. The following represents the current thinking of the organizers (regular updates will be posted on seaturtle.org).

Friday, February 20, 2004

- Arrival of participants for the 11th Latin American Sea Turtle Specialists Meeting
- 11th Latin American Sea Turtle Specialists Meeting – check-in and registration
- Other Regional Meetings (to be announced)

Saturday, February 21

- All day - 11th Latin American Sea Turtle Specialists Meeting
- Other Regional Meetings (to be announced)
- Pre-symposium excursions

Sunday, February 22

- Arrival of participants for the 24th Annual Sea Turtle Symposium
- 24th Annual Sea Turtle Symposium - registration
- All day - 11th Latin American Sea Turtle Specialists Meeting

- Other regional Meetings (to be announced)

- Pre-symposium excursions

Monday, February 23

- 08:00 - transfer by bus from Herradura Hotel to the National Theater for opening ceremonies of the 24th Annual Sea Turtle Symposium, and cultural events.
- 10:00 – 12:30 mini-symposium on Costa Rican Turtle Conservation and Research
- 12:30 - transfer back to Herradura
- 13:00 – 14:00 lunch
- 14:00 – 18:00 afternoon poster and oral sessions
- 19:30 opening banquet sponsored by the Costa Rican Tourism Institute

Tuesday, February 24

- 08:30 – 12:00 morning poster and oral sessions
- 12:00 – 13:00 lunch session on Fresh Water Turtle Research and Conservation
- 14:00 – 18:00 afternoon poster and oral sessions
- 19:30 Return of the Tippling Turtle Bar

Wednesday, February 25

- 08:30 – 12:00 morning poster and oral sessions
- 12:00 – 13:00 lunch
- 14:00 – 18:00 afternoon poster and oral sessions
- 19:30 Tippling Turtle Bar
- 20:00 Auction

Thursday, February 26

- 08:30 – 12:00 morning poster and oral sessions
- 12:00 – 13:00 lunch
- 14:00 – 18:00 afternoon poster and oral sessions

- 19:30 Reception and awards ceremony sponsored by the Costa Rican Ministry of Environment and Energy

- 21:00 Tippling Turtle Bar

Friday, February 27

- 08:30 – 11:30 morning poster and oral sessions
- 11:30 – 12:00 Closing Ceremonies of 24th Annual Sea Turtle Symposium
- 12:00 – 13:00 lunch
- begin post-symposium excursions

Saturday, February 28

- Special ceremonies and press conference at Playa Grande, Guanacaste (for invited guests)
- shuttles from Herradura Hotel to San Jose International airport for return flights
- post-symposium excursions

Associated Events

One of the highlights of the meeting will be a mini-symposium on Costa Rica and the important role it has played in sea turtle conservation and research; for more information on the Costa Rica mini-symposium, please contact Committee member, Dr. Mario Boza at ecoamericas@amnet.co.cr. The 24th Symposium will also serve as host for the 11th Reunion of Latin American Sea Turtle Specialists, to take place either at the Herradura Hotel, or at Ostional National Wildlife Refuge. We will communicate the final venue in our web page and in future communications. The coordinator for this meeting is Dr. Carlos Orrego, Ministry of the Environment and Energy, carlosmariool@yahoo.com.mx, should you require additional information. We also welcome meetings of others who may be interested in similar regional or thematic meetings (please contact Roderic Mast to schedule special meetings and events)

Call For Papers and Resolutions

The program committee will review all proposals received prior to **15 November 2003**. Final details are still being worked out regarding the themes and chairpersons for the various sessions in which oral and poster presentations will be organized. Nonetheless, we would like to provide you now with

the information required for abstract submission. We urge all potential presenters to review the Symposium website over the coming months to determine the oral or poster sessions most appropriate for their presentation, and we also request that you consider the theme of the Symposium, as described above – *Sea Turtle Lifescapes* – as you conceive your topics for presentation. Please use the Symposium web site, found at (<http://www.seaturtle.org/symposium/>) to access guidelines and to make your submission. If you cannot access the web site, you may submit your abstract as a text file attachment to an e-mail sent to abstracts@seaturtle.org. If you are unable to submit your abstract via internet or email, then send your proposals by fax to 202-318-4448. A printed copy of the submission guidelines can be mailed to you upon request (contact Roderic Mast). If you wish to submit a Resolution to be considered by the Board of Directors of the International Sea Turtle Society, please follow the guidelines presented at the website (<http://www.seaturtle.org/symposium/resolutions/>) or request guidelines via e-mail: resolutions@seaturtle.org.

Symposium Registration

You must register to attend the Symposium. The preferred registration method is to visit the Symposium's web site (<http://www.seaturtle.org/symposium/>). There you will find everything you need to know about the Symposium in addition to a user-friendly interface for registration. Should you wish to receive a printed copy of the registration materials, please contact Roderic Mast.

Lodging and Transfers in Costa Rica

The Organizers are currently negotiating discounted airfares, as well as a formal relationship with a travel provider that will allow for the purchase of tickets and the arrangement of pre and post symposium travel on-line. We have reserved a block of rooms at the Hotel Herradura, which can be reserved by calling (+506) 239-0033, by faxing to (+506) 293-2713, or by e-mail to gventas@hotelherradura.com. The web site of the hotel is www.hotelherradura.com. Be sure to make reference to the Sea Turtle Symposium. The Juan Santamaria International Airport in San Jose is

only 15-20 minutes away from the Herradura Hotel and International Conference Center, and shuttles will be made available at pre-determined times for Symposium participants. Please stay tuned for future articles in the Marine Turtle Newsletter, or check the Symposium website for updates on travel arrangements.

Visas

Americans and Canadians do not require a visa for Costa Rica, and indeed only a very small number of foreign countries are required to obtain a visa before entering Costa Rica. A "Public Interest Decree" is presently being negotiated with the government of Costa Rica, that will allow for the provision of special assistance to participants in the 24th Symposium requiring visa services. If you are from Colombia, South Africa or if you envision that you may have difficulty obtaining a visa in your home nation, please seek advice from the Symposium Organizing Committee, c/o Clara Padilla (Clarits@hotmail.com).

ISTS Travel Assistance

As in past years, the ISTS will provide support for a limited number of qualified presenters at the 24th Symposium from around the world. The deadline for submission of applications will be **15 November 2003**. The Chair of the ISTS Travel Committee is Dr. Jeffrey A. Seminoff, and additional information on travel awards will appear in this and future issues of MTN.

Conclusion

The ISTS, the Organizing Committee and I are all very excited about the 24th Symposium, and are working hard to assure that it will be both a wonderful experience for you, the participants, as well as a positive step for the conservation of sea turtles worldwide. Check our website for regular updates, and we will continue to provide additional information through the MTN. We look forward to seeing you in Costa Rica next February.

rates), as well as assuring smooth procedures for foreign visitors requiring visas. We have partnered with a local travel firm, Neotropical Expeditions, to provide a number of reasonably priced pre and post-Symposium travel opportunities for participants, and we have arranged for a full time travel advisor to be present at the Symposium to assist with tickets and excursions for those interested in seeing more of Costa Rica. Furthermore, we have selected an international travel partner, Manaca.com, to assist participants with their global travel needs; Manaca will provide the Symposium with the convenience of web-based travel planning via a link from www.seaturtle.org.

Symposium Theme and Sessions

As mentioned in the first announcement, the theme of the 24th Symposium is *Sea Turtle Lifescapes*, and we ask presenters to consider this as they prepare their abstracts for submission over the coming months; for a more detailed description of the theme, please refer to MTN No. 101 – page 42. With the help of Dr. Nat Frazer, and based partially on his article in MTN 100 entitled *Concerning those Things Which We Ought to Have Done: Reflections on the Future of Sea Turtle Research*, seven sessions have been designed for the 24th Symposium, as described below. Chairpersons will be selected for each session, and each session will be comprised of presentations drawn from both submitted abstracts and invited speakers. The agenda proposed herein will be finalized once all abstracts are received and all invited papers and poster sessions are confirmed (remember that the deadline for submissions is **November 15, 2003**).

Sea Turtles in Costa Rica – Mini Symposium

Half-day: First half of Day 1 (Feb. 23), Session Chair: Roldan Valverde

Costa Rica has a rich history in sea turtle conservation and research, and has always served as a leader in the field. Presentations for the mini-symposium on sea turtles in Costa Rica will highlight these accomplishments and demonstrate why Costa Rica remains at the forefront. Presentations in this session may encompass all topic areas related to sea turtle research, conservation and history that pertain to Costa Rica.

Sea Turtles and Socio-Economics

Full day: Second half of Day 1/first half of Day 2 (Feb 23-24), Session Chair: TBA

This session will include all presentations that analyze the cultural interactions that take place between humans and sea turtles, as well as the role or value of sea turtles in human economic activities. This includes investigations regarding the perception, treatment, and utilization of sea turtles by specific cultures or populations for subsistence, ceremonial and other purposes, as well as the role that sea turtles play in local and global economic activities and the associated conservation challenges. In previous years, presentations falling under this category have been placed in sessions with titles such as 'Human-Sea Turtle Interactions' (2001), and have included projects related to ecotourism and other economic alternatives, consumptive use of sea turtles, indigenous cultural practices/beliefs, sustainable use of sea turtles, and economic valuation of sea turtles. Sample titles from presentations at previous symposia that would fit into this session include: *Researching the utilization of marine turtle eggs*; *Sea turtles and the indigenous culture of Palau*; *The sea turtle in the magical-religious beliefs of the indigenous Wayúu*; *Conservation and sustainable use: Some principles and problems*; *Turtles and tourists in a global economy: The future of ecotourism as a conservation tool*, and; *Assessing the socio-economic value of marine turtle use in the UK overseas territories in the Caribbean: Methodological challenges*.

Sea Turtle Assessment and Monitoring

Full day: Second half of Day 2/first half of Day 3 (Feb. 24-25), Session Chair: TBA

This session will include results of long-term monitoring reports, (assessments of management and conservation programs), findings of laboratory studies in genetics, toxicology, disease and physiological mechanisms, human impact assessments, behavior/life-cycle studies, population biology, and other studies that *assess or monitor the lives or conservation status of sea turtles*. In previous years, presentations in this category have been placed in a variety of sessions with titles such as, 'Physiology and Behavior', 'Ecology', 'Genetics', and 'Conservation, Management and Policy'. Sample titles of presentations from previous symposia that would fit into this session include: *Metabolic rates, dive duration and buoyancy regulation: Why sea turtles beat any other diver in breathholding*; *Trace elements (Cd, Hg, Zn, Cu, Se) accumulation and tissue distribution in loggerhead turtles (Caretta caretta) from the western Mediterranean Sea*; *17 years of monitoring and management of*

leatherback sea turtle nesting population in the northeastern coast of Puerto Rico (1986-2002); Mercury in loggerhead sea turtles, Caretta caretta, in the southeast US: Assessing health impacts and developing monitoring strategies, and; Underwater noise and anthropogenic disturbance in critical sea turtle habitats.

Global and Regional Sea Turtle Conservation and Research

Half-day: Second half of Day 3 (Feb. 25), Session Chair: TBA

This session will include presentations that deal with large-scale sea turtle conservation and research efforts, international or intercontinental partnerships, broad regional agreements, multi-national regimes, and regional and global policy initiatives. Presentations could encompass environmental education, broad communications efforts, and regional/global strategies for sea turtle research or conservation, policy initiatives, treaties, and trade regimes and agreements. In the past, presentations that fit under this session would have been placed in sessions like 'Education and Community-Based Conservation' or 'Conservation Management and Policy'. Sample titles of presentations from previous symposia that would fit into this session include: *Turtle conservation and fishery management in the U.S. Western Pacific; Sea turtle protection across frontiers: Exchange of expertise between the Netherlands, Benin, and Costa Rica, and; A regional conservation program for the Guianas.*

Sea Turtle Modeling and Prediction

Half-day: First half of Day 4 (Feb. 26), Session Chair: TBA

This session is intended to include presentations that discuss implementation, testing, development, or revision of population, behavior or ecosystem models that aim to predict fluctuations in sea turtle populations as well as the impacts of anthropogenic alteration to their natural ecosystems. This may include work on models that predict the course and impact of pollutants, the spread of disease, natural variation in population sizes, and responses of turtle populations to environmental changes or conservation efforts. This session is intended for those presentations that deal specifically with developing or improving research geared specifically for use in modeling. In previous years, presentations falling under this category have been placed in sessions with titles such as 'Ecology'.

Because this is such a recently developing area of research, we expect new and unique contributions to this session from a variety of sectors of sea turtle research. Sample titles of presentations from previous symposia include: *Estimating productivity and the risk of hatchling loss to near shore predators at a high-density loggerhead nesting beach on southeast Florida; Sand temperatures and sea turtle nests: Tri-dimensional computational fluid dynamics modeling of heat flux; New developments in the population dynamics of pacific leatherbacks: What can population models tell us; Assessment of the Tortuguero, Costa Rica green turtle populations using deterministic matrix models, and; Predicting the magnitude of cold-stunning events in Cape Cod Bay, Massachusetts using classification and regression tree modeling.*

Technology and Sea Turtles

Half-day: Second half of Day 4 (Feb. 26), Session Chair: TBA

The technology session is intended to present advancements and developments in equipment, technology, and methodology associated with all aspects of sea turtle conservation and research (excluding those dealing with prediction and modeling). This includes improvements, advancements, and trials in research equipment such as tagging and transmitting devices, as well as studies of TEDs, long-line hooks, and other fishing gear. Additionally, developments in software applications related to sea turtle conservation, along with improvements, revisions, and developments in the methodologies associated with both laboratory and field research techniques. In the past, presentations that fit under this category have been grouped with the sector for which the technology or methodology was designed, and have often been presented as posters. This category will also involve both a trade show and workshops that will take place at the 24th Symposium. A separate session on technology is being created this year due to both the increasing role of technology in conservation efforts and the recognition that certain technologies are applicable in multiple sectors. Sample titles of presentations from previous symposia include: *Satellite tracking marine turtles: An assessment of data analysis options; The ARGOS global satellite tracking and data collection system for sea turtles; Dead without a TED: Turtles drowning in U.S. "certified shrimp nets"; Satellite tracking of green turtles, Chelonia mydas, at Tortuguero, Costa Rica; Methods aimed*

to reduce marine turtle interactions with longline fishing gear; Results of an experiment to evaluate effects of hook type on sea turtle bycatch in the swordfish longline industry, and; Genomics meets ecology: The use of molecular tools for the study of ecology, evolution, behavior and conservation.

Novel Insights in Sea Turtle Research and Conservation

Half-day: First half of Day 5 (Feb. 27), Session Chair: Nat Frazer

The novel insights session will be the final session of the 24th Annual Symposium. Its purpose is to inspire the audience to consider the future of sea turtle research and conservation in a progressive way by presenting novel ideas or practices related to sea turtle biology or conservation. This session will likely involve only a limited number of presentations on ideas and/or innovative approaches for future research projects, focusing on key issues or areas of sea turtle biology and conservation that either 1) have not yet been successfully addressed; or 2) would benefit from novel techniques or methodologies. This may consist of new discoveries in areas of biology such as physiology, genetics, development, or behavior, as well as successful developments in conservation techniques, policies, or agreements. During this session there will be ample time set aside for discussion. We hope that ending on such a note will leave us all with a positive outlook and a progressive attitude towards sea turtle conservation.

Presenters will be asked to submit abstracts within one of the above sessions if possible, and will be contacted prior to the Symposium by their Session Chair to assure that standard criteria are met for presentation length, quality and consistency within each Session.

1st Annual Global Sea Turtle Datafest

The ISTS, IUCN/MTSG and Conservation International are organizing the 1st Annual Global Sea Turtle Datafest in Conjunction with the 24th Annual Sea Turtle Symposium, and we hope to make this activity an annual event thereafter. It is well known that effective conservation of sea turtles can only be achieved through broad regional and global efforts that endeavor to conserve turtles throughout all of their life stages and during all the spatial wanderings of their long lives.

Sea turtles have been the target of substantial scientific investigation over the past fifty years, research that has yielded a plethora of valuable data for conservation planning. Yet the vast majority of this research has been highly localized. Data are not lacking at the level of specific beaches, countries or in rare cases basins (like the Caribbean), but there is a desperate paucity of useful *global-scale* presentations of accurately geo-referenced data. Regrettably, it is precisely these types of data that are most needed in undertaking GIS-based analyses for the development of broad regional conservation strategies, and for building alliances across national borders and among multiple partner communities that represent both the turtles and the threats to their survival.

The Data-Fest will piggy-back on the 24th STS using the forum and its human scientific resource as the data-gathering nexus for advancing the evolution of a high quality, consensus driven, geo-referenced database on various aspects of global sea turtle biology. Techniques for consensus-driven expert analyses of global conservation priorities have been perfected and utilized by CI since the late 1980's, and CI's Center for Applied Biodiversity Science (CABS) will provide the technical expertise for designing and executing the Data-Fest on-site in San Jose. Data types and sources will be identified in advance and base maps created from "best available information". These base maps will serve as the centerpieces of consensus workshops to be facilitated by CI/CABS, ISTS and MTSG experts at the Symposium.

Stay tuned for more information about this exciting initiative in upcoming notices about the 24th Symposium both here (MTN) and at the official website of the Symposium at www.seaturtle.org. If you are interested in contributing data or participating in the Data-Fest, please contact Brian Hutchinson at b.hutchinson@conservation.org.

Reminders to Participants in the 24th Annual Symposium

Registration: You must *register* to attend the Symposium. The preferred registration method is to visit the Symposium's web site (<http://www.seaturtle.org/symposium/>). There you will find everything you need to know in a user-friendly interface.

Lodging: Participants at the Symposium will stay at the Herradura Hotel in San Jose, where a block of discounted rooms has been reserved for the Symposium. Reserve your room by e-mail to gventas@hotelherradura.com, or call (+506) 239-0033. Be sure to make reference to the Sea Turtle Symposium.

International travel and pre & post-Symposium excursions: Learn about the offerings, and register through Manaca.com, which can be accessed directly on the web, or from www.seaturtle.org.

Submission of abstracts and Resolutions: Abstracts for oral papers or posters presentations must be received by November 15, 2003. This deadline applies also to resolutions for consideration by the ISTS Board.

Visas: If you are from Colombia, South Africa or if you envision that you may have difficulty obtaining a visa in your home nation, please seek advice from the Symposium Organizing Committee, c/o Clara Padilla (Clarits@hotmail.com) as soon as possible.

Manuals on sea turtle conservation

Harry Andrews

Centre for Herpetology/Madras Crocodile Bank Trust
Postbag 4, Mamallapuram, Tamil Nadu 603104.
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Five of the seven species of marine turtles are found in Indian coastal waters and at least four have significant nesting beaches and/or feeding areas. Many factors need to come together for the conservation of these species, but none more than cooperation between agencies in different states and sectors within the country.

The Wildlife Institute of India (WII) recently implemented a UNDP – Government of India sea turtle conservation project. The project included surveys of status and threats in all coastal states, research, training programs, education workshops, community based conservation, digital image analysis of coastal areas, Turtle Excluder Device implementation, and a review of coastal legislation. For a continuation of the conservation efforts and the extension of capability to a host of other organizations, it is of utmost importance that certain aspects are emphasized and training provided to appropriate targets.

In this regard, sea turtle conservation manuals have been prepared by the Centre for Herpetology/Madras Crocodile Bank Trust (MCBT) for the UNDP – Government of India sea turtle project, for distribution to concerned individuals and agencies, including the state forest and fisheries departments, non government organizations and young researchers. The manuals are in English, but concerned departments may take the responsibility of translating the relevant manuals into the local language.

The manuals are aimed at an Indian audience, but they are general enough for use elsewhere, particularly in south and south east Asia. The manuals have been reviewed by a panel of international technical advisors including Jeanne Mortimer, Jack Frazier, Matthew Godfrey and Brendan Godley. They have been edited by Kartik Shanker and designed by ECOTONE, Chennai. **PDF files of all manuals are available at <http://www.kachhapa.org>.** Hard copies are available from the MCBT, Tamil Nadu.

Beach Management and hatchery programmes

Since most turtle nesting beaches in India are under threat, it is often necessary to have an appropriate conservation program associated with them. In-situ and ex-situ approaches have to be adopted, depending on the nature of threat and the objective of the program. In India, many Forest Departments and non government organizations already run hatchery programs. This manual provides information on beach management for the conservation of turtles. It also provides instructions on hatchery practices. There is a section on the biology and identification of sea turtles.

Research and management techniques

This manual focuses on research techniques for the study of turtles. Even without much equipment, some basic research can be carried which can be very useful for the conservation of sea turtles. Placing research

in the context of the biology of sea turtles, this manual provides information on studying nesting turtles, turtle nests and hatchlings, tracing migratory routes, and studying behaviour and evolution. It details methods such as tagging, genetics and telemetry. It also provides a brief account of sea turtle research resources such as journals and websites.

Population Monitoring and Census

This manual aims at providing methods for intensive and extensive surveys on nesting beaches and foraging habitats, and secondary information from market surveys and interviews. In this context, it provides details on identification of adults, hatchlings and tracks. It also provides a detailed method for counting turtles during arribadas, specifically aimed at the Forest Department and non government organizations in Orissa, who are involved in monitoring the mass nesting rookeries.

Eco (turtle) Friendly Coastal Development

The effects of urbanization and development have taken their toll on almost all the nesting beaches in India. However, the effects of many industrial and urban practices, particularly lighting, can be easily mitigated by adopting common sense approaches and new technologies. This manual deals with threats to coastal habitats such as sand mining, beach armouring, plantations, highways, ports and harbours, and artificial illumination. It also deals with tourism and offshore threats such as pollution and fisheries.

Manuals are available from:

Harry Andrews (mcibtindia@vsnl.net)

Madras Crocodile Bank Trust

Postbag 4, Mamallapuram, Tamil Nadu 603104.

For further information, contact:

Kartik Shanker, Series Editor(kartik@atree.org)

Satellite Tracking on the World Wide Web

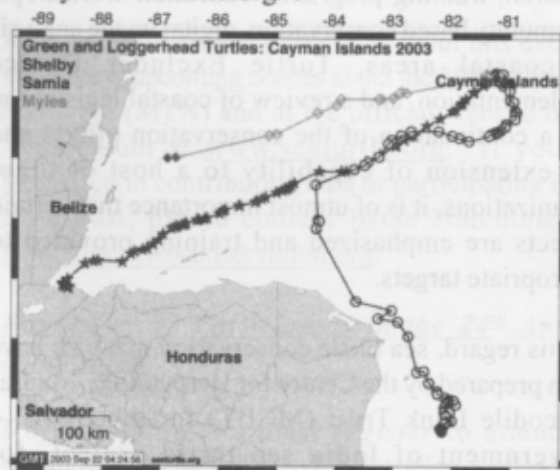
Michael Coyne

SEATURTLE.ORG

Email: mcoyne@seaturtle.org

SEATURTLE.ORG recently introduced a new satellite tracking resource, in collaboration with the Marine Turtle Research Group and a consortium of conservation organizations and donors, that provides sea turtle researchers with an easy-to-use tool for collecting, managing and sharing their satellite telemetry data in near real-time. The public interface, available on SEATURTLE.ORG at <http://www.seaturtle.org/tracking/>, currently includes 12 turtles from three projects that have been tagged and are being actively tracked on the web from nesting beaches in the Cayman Islands, North Carolina and South Carolina. It is expected that other projects will join soon. Visitors to the site are able to find background information on each project and turtle and can register to receive daily e-mail updates about the movements of turtles in each of the active projects. All track maps are also updated daily. Behind the scenes is a data management system that takes most of the drudgery out of handling satellite telemetry data by automating data retrieval and archiving from the ARGOS system. A number of data filtering and management tools are in development, including a direct link to SEATURTLE.ORG's Maptool <http://www.seaturtle.org/maptool/> providing data owners

with on-the-fly mapping of their satellite telemetry data. If you are interested in adding a project to the Satellite Tracking resource on SEATURTLE.ORG, or have any questions, comments or suggestions, please contact Michael Coyne <mcoyne@seaturtle.org>.



Where will Shelby, Myles, and Samia Go? Students, supporters in the community, and others worldwide are following the migrations of these post-nesting green and loggerhead sea turtles from the Cayman Islands. The turtles' positions are updated daily on SEATURTLE.ORG <<http://www.seaturtle.org/tracking/>>.

NEWS AND REPORTS

Report on the GOI - UNDP Sea turtle Workshop, Andaman & Nicobar Island, India

Aparna Singh¹, Harry Andrews² and Kartik Shanker²

1- Andaman and Nicobar Environmental Team,

Post Box- 1, Jungli Ghat P. O., Port Blair- 744103. Andaman and Nicobar islands.

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Postbag 4, Mamallapuram, Tamil Nadu 603104.

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A capacity building and training workshop was conducted on 26th and 27th June 2003 at Vansadan, Andaman & Nicobar Islands Forest Department, Port Blair, Andaman Islands. The workshop was organized by the Andaman Nicobar Environmental Team and Madras Crocodile Bank Trust, Tamilnadu, in collaboration with the Wildlife Institute of India, Dehradun.

The objectives of the workshop were to facilitate exchange of information, expertise and techniques, to provide training on basic biology of sea turtles, evaluation of threats, beach management and hatchery programmes for the conservation of sea turtles, to evaluate the status and threats to sea turtles, the best approaches to reduce threats and implementation of threat reduction measures. Further, the workshop aimed to introduce community based conservation with a view to integrating local communities in sea turtle conservation programmes and to emphasise public awareness programmes.

Resource persons made presentations on an overview of sea turtles of the world and India, threats to sea turtles, biology of sea turtles, research techniques, sea turtle conservation, some aspects of data collection, hatchery management and beach management programmes. Subsequently, group discussions were used to identify problems and approaches to solving the problems. While a variety of different issues were raised, it was stressed that interaction between different agencies and interagency communication needed to be strengthened. Based on the above discussions, groups were formulated to discuss approaches to dealing with enforcement, threats and awareness.

Enforcement

Current enforcement at sea is by the Coast Guard and Indian Navy. There is lack of communication between Coast Guard and Navy with Forest Department and Police. No direct communication

channels are currently available. It was also pointed out that currently, the Coast Guard is empowered only for apprehending foreign vessels and not the local ships/boats, and is therefore constrained in the enforcement of the Indian Wildlife Protection Act. On the other hand, lack of skill, equipment, manpower and training makes it difficult for the Forest Department to enforce laws. With regard to laws, a number of issues were raised, including whether there were enough laws. It was suggested that surveillance radars could be used to locate all offshore ships, and information about wildlife laws related to marine environment needed to be made available to all agencies, including maps with boundaries of protected areas and national parks. Other suggestions included communication by a common channel between agencies, community awareness of laws, maps of sand mining areas and licenses, and the necessity for fishing boats to have proper permits.

Specific requests of the Coast Guard include:

- Relevant extract of Wild Life Act, Tribal Act, Fisheries Act
- Rules to effect maritime enforcement, notification for empowering the Coast Guard
- List of forest check posts to handover offenders
- Telephone numbers of forest outposts
- Directory of National Parks and their coordinates
- Lists and maps of designated sand mining areas
- Common channel for communication

Threats to sea turtles

Sand mining

The implementation and regulation of sand mining operations was discussed. It was agreed that sand mining had to be phased out over a period of time. It was recommended that sand could be provided on subsidy from mainland, and publicity and awareness could be generated on the use of pulverized sand for construction.

Pollution

Discussions also centred around pollution and waste disposal. Maximum plastic and debris are found in Coco channel, 10 degree channel and 6 degree channel, which is where most of the turtles and dugongs get hit by propellers as well. Deposits and waste from international vessels along the coast was also said to be high. A seasonal debris cleaning programme in collaboration with local non government organizations was suggested. It was also recommended that remote islands are cleaned before the nesting season so that sea turtles are not prevented from nesting. Ships' garbage disposal, recycling and solid waste management were discussed. Regulations and recommendations for bilge oil disposal need to be formulated. Used oil reception facility and bilge oil separators were recommended. A total ban on plastic bags was recommended. Biodegradable and non biodegradable waste handling and management and plastic solid waste management needs to be strengthened. Plasma incinerators and point of source restrictions were suggested.

Fisheries

With regard to fisheries, there are very few trawlers in the Andamans and they do not cause much damage. Even so, the purchase of equipments and subsidy on TEDs was deemed useful. A strict control on mesh size for trawlers and other fishermen was suggested. Some areas need notification as no fishing zones along sea turtle feeding and nesting habitats. The Fishery Regulation Act needs to be revised, with inputs from the Forest Department to incorporate new protected areas and nesting sites. Fishing boats need to display license in a predesignated colour. The Coast Guard also suggested that fishing licenses must incorporate maps showing prohibited areas (ie. tribal areas, turtle areas and protected areas), list of life saving equipment on board and a list and pictorial chart of protected marine species. The Coast Guard toll free number 1718 can be printed on the license. There also needs to be an effective procedure to punish boats for violation of laws.

Depredation of eggs

The menace of dogs in inhabited and uninhabited islands was highlighted. It was suggested that it should be made illegal for fishermen to take dogs to uninhabited islands. The sterilization of dogs in inhabited islands, ultrasonic frequency to repel dogs,

and use of fire crackers/sound scares or a combination of the above methods, were suggested. Similarly, pigs need to be kept away from nesting beaches as well. The depredation of eggs by humans also had to be addressed by education and awareness programmes.

Other issues

An island marine environment protection committee with Coast Guard, Forest and Fisheries Departments, Navy and NGOs was mooted. It was recommended that there should be a common format for collection of information on turtle nesting, incorporating all details. Unexplored islands should be surveyed in a phased manner and work by Forest Department should be published. A turtle monitoring cell could be established to serve as a node for information about sea turtles.

The need for education and awareness was stressed. It was suggested that combined community interaction with Forest and Fisheries Departments and the Coast Guard would be helpful. Turtle camps and turtle walks, production of awareness material and involving volunteers could promote awareness about sea turtle conservation in the islands.

In reaction to the discussions and recommendations of the group, the Chief Wildlife Warden responded that a state level environmental committee had been established. A no plastic zones was to be declared. All fishermen were to procure licenses by October 1, 2003. Following a Supreme court judgment, sand mining was to be reduced to 30% and then phased out.

The Principal of the Forest Training School offered that the trainees of the school would undertake the task of translating the MCBTs "Beach management and Hatchery Programmes" manual into Hindi for use by the local Forest Department staff.

The workshop was attended by officers from the Indian Navy, Indian Coast Guard, scientists from Central Agricultural Research Institute, National Institute of Ocean Technology, Fisheries and Forest Department officers, and a batch of trainees of the Forest Training School, Andamans. The resource persons included Kartik Shanker, Aparna Singh, Shreyas Krishnan and Harry V. Andrews (ANET), Ravi Shankaran (SACON), Mr. Yesu Ratnam, Principal, A & N Forest Training School, and Mr. M.Grahamdurai, DCF, A & N Forest Department.

OPERATION KACHHAPA NEWS

CEC on the Olive Ridleys in Orissa

Under the directions of The Supreme Court of India, the Central Government under a notification dated 18th September 2002, constituted the Central Empowered Committee (CEC) for the purpose of monitoring and ensuring compliance of orders of the Honourable Supreme Court covering the subject matter of forests and wildlife and related issues.

Due to the apathy of the state towards safeguarding the sea turtles, Operation Kachhapa decided to file an application to the CEC in India's capital, New Delhi. The application was filed on 19th December 2002. It raised a number of issues in considerable detail, regarding the protection of olive ridley sea turtles in the State of Orissa. Since Operation Kachhapa already had a case pending in the Orissa High Court, and could be held in contempt of court for filing a similar application, it was filed by a legal colleague, Mr Alok Agarwal. Responding to the application, the CEC issued interim directions to the State Government of Orissa on 7th March 2003. These included:

1. The Forest Department must immediately set up permanent protection camps at Devi River mouth and Rushikulya River mouth, and hire sea-going patrol boats for each of the camps. In addition, a minimum of ten armed police personal should be posted at each camp for patrolling with Forest and Fisheries staff;
2. Funds for the protection of sea turtles already with the Forest Department must be utilised for the purchase and hire of equipment, etc.;
3. The State Government should provide land for two permanent boat stations between Paradeep and Rushikulya that are suitable for shallow water patrolling. The stations are to be established by the Coast Guard who have also been requested to intensify patrolling during the turtle nesting season;
4. The officers of the Coast Guard at Paradeep should be notified as Authorised Officer under the Orissa Marine Fishing Regulation Act (OMFRA). This will empower the Coast Guard to seize and impound trawlers operating in the restricted zone;

5. The Fisheries Department should suspend all licences of mechanised boats not using Turtle Excluder Devices (TEDs). In addition, stringent action needs to be taken against boats operating without licences and not having valid documents;
6. All gill-netters should be banned from operating within 5 km of the three turtle nesting sites;
7. All seized trawlers and boats should be kept in secure, well-guarded locations on dry land and confiscation proceedings initiated against them. Armed guards should be placed around the area to prevent owners from retrieving their boats.
8. Wireless communication should be enhanced between the Coast Guard and Forest Department for improved enforcement efforts;
9. Daily wage workers and volunteers need to be engaged for nest protection activities; and,
10. Facilities and incentives should be provided by the Chief Wildlife Warden for staff engaged in patrolling activities.

A second hearing on the application to the CEC took place on 28 March 2003. A number of senior officers from the Government of Orissa were present, including the Chief Secretary, the Principal Secretary, and the Chief Wildlife Warden, to give the State's response to the directions given on 7th March 2003.

Mr. Agarwal and the Project Director of Operation Kachhapa presented up-to-the-minute facts to counter the State's response. They were also able to confirm that, due to the CEC's interim directions, the following action had been taken by the State:

- Patrolling had been moderately intensified
- The Coast Guard had been empowered under OMFRA
- Shallow water patrols were now being carried out by the Coast Guard
- 2 licenses had been cancelled due to non-use of TEDs, and 20 additional boats had been seized for fishing without documents, and
- Nest protection was being carried out.

The CEC was not impressed by the limited action taken so far by the State of Orissa. The CEC asked Mr. Agarwal and the Project Director of Operation

Kachhapa to give an up-to-date report on the progress and shortfalls in the protection of the olive ridley turtle in Orissa. The report was submitted on 31 March 2003.

The hearings for this case have been completed and the Supreme Court is shortly expected to pass final orders.

OPERATION KACHHAPA EDUCATION & AWARENESS ACTIVITIES

In March and May 2003, five large rallies were organised by OpK for local students in the Devi River and Rushikulya area to spread the word on threats to olive ridley sea turtles. The students first learnt about the subject and then took an oath to do whatever they could to spread awareness of the turtles' plight in their communities. The students visited a number of villages shouting slogans and carrying placards. The participants also handed out flyers with messages to protect the turtles and put up posters at various locations within the villages. The students, along with some of the villagers and fishermen, were given woven bags with an image of a turtle and a message to save them. Students from Balabhadrapur UGM School, Papira Prathamika Vidyalaya, the Purunabandha Primary School, and both the Primary and U.P. School of Gokharkuda took part in the rallies. Refreshments were provided to the participating students and school staff.

School rally to raise turtle conservation awareness at Gundalba village

Two meetings were also held at Kantiagada and Podampeta Primary schools in the Rushikulya area. The need to safeguard the long-term future of the olive ridleys in Orissa was explained and school bags, posters and brochures distributed to the participants. It is hoped that these student rallies and meetings will help gain the support of the local communities to protect olive ridleys.

In addition, two state level quizzes on sea turtles were held for school students in March 2003 and for college students in May 2003 at Bhubaneswar.



School rally to raise turtle conservation awareness

Community participation in the release of a leatherback turtle in south Kerala

The capture of a large turtle in shore seine on 11.12.02 at about 07.00 hrs at Pallithura, 10 km south of Vizhinjam, was reported in a local newspaper. One of the authors visited Pallithura at 08.30 hrs to collect information about the turtle. The turtle was a male leatherback (*Dermochelys coriacea*), measuring 200 cm in total length. The turtle was released back into the sea by 10.00 hrs by the local community.

Source: S. Krishna Pillai*, C. Unnikrishnan, K.K. Velayudhan, T.T. and Ajith Kumar
Vizhinjam Regional Centre, Central Marine Fisheries Research Institute,
Vizhinjam, Trivandrum, Kerala - 695 521
* Retd Principal Scientist, CMFRI, Deivakam, 7-49
F, Pilliyar Kovil Street, NGO Colony, Kottar PO,
Nagercoil 629002.

Leatherback turtle meat used as food in south Kerala

A female leatherback turtle, accidentally caught and landed on September 30, 2002, was sold in the Kattakada fish market, as food. The turtle, which was landed at Vizhinjam, Kerala, was sold at the site for Rs. 500.00. The turtle was then butchered and packed in bamboo baskets with ice. It was transported to the Kattakada fish market, 20 km west of Vizhinjam, on October 3, 2002 and sold at Rs. 20 per kg. Undeveloped eggs of the turtle were also sold. Fleishy parts of the head were also cut into pieces and sold. The carapace and plastron were discarded in Vizhinjam and were later retrieved by a local diver for CMFRI. The carapace measured 141 cm in length and 106 cm in width.

Source: S. Krishna Pillai, *Fishing Chimes* 23 (3): 46-47 (2003).

Marine Turtle Newsletter

ONLINE - The *Marine Turtle Newsletter* and *Noticiero de Tortugas Marinas* are both available at the MTN web site <<http://www.seaturtle.org/mtn>> and <<http://www.seaturtle.org/ntm>>

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Monitoring Nesting Loggerhead Turtles (*Caretta caretta*) in the Central Caribbean Coast of Colombia - *Diego Amorochio*

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Observations on Sea Turtles in the State of Paraíba, Brazil - *Rita Mascarenhas, Douglas Zeppelini Filho & Valdi Silva Moreira*

Epibiotic Associates of Oceanic-Stage Loggerhead Turtles from the Southeastern North Atlantic - *Michael G. Frick et al.*

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Olive Ridley Sea Turtles in Porto-Novo, Tamil Nadu, India, with an Observation of an Asian Giant Softshell Turtle - *I. Sujjahad Hussain*

Green Turtle with Living Tag Captured in the Southern Bahamas - *Karen A. Bjorndal et al.*

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